

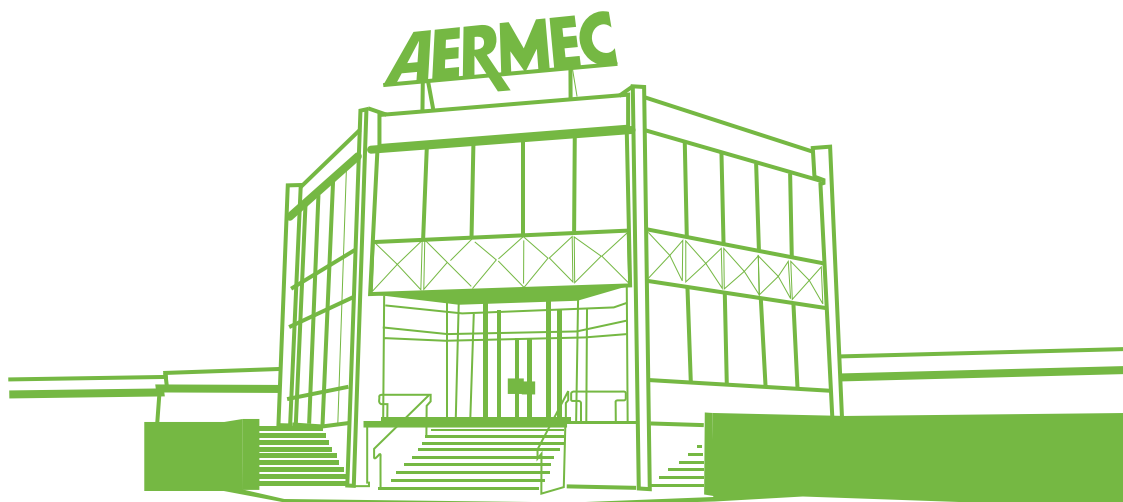
**AERMEC**











### **The company**

Giordano Riello, founder and chairman of Aermec, assisted by his son Alessandro and daughter Raffaella, has solidly associated the Company name with precise values:

**Respect for the environment** by using new eco-friendly refrigerants as well as innovative installations using water as the carrier fluid.

**Noise pollution control** with low-noise emission products, which undergo scrupulous testing before being put on the market.

**Energy saving**, the great challenge of the Third Millennium, with the development of combined heating and air conditioning systems where appliances are used only as and when necessary.

**Health care** special filters trap the smallest particles in suspension and the Plasmacluster system cleans the air of dust mites and moulds, making for a cleaner, healthier environment and with the new germicidal lamps eliminating all virus and bacteria.

## Hystory

- 1961** Giordano Riello sets up Riello Condizionatori, initially producing for contractors only. The story begins.
- 1963** The Aermec brand is born and marks all future company products designed and manufactured on site.  
The brand name gains a stronghold as a major product name in Italy and throughout Europe.
- 1970** Aermec can already supply fresh and warm air. Aermec presents the first dual section conditioner: the first "split-system". Fancoil production starts.
- 1980** The Eighties sees the development of water chillers and air handling units.
- 1990** The Nineties mark the definitive consolidation of the company on the market. The Aermec brand is associated with advanced technology and high quality design.
- 1998** The name makes the company. From 1 January Aermec becomes the company name as well as product brand.
- 2000** The company consolidated its leadership in the production of fancoils, and laid the technological and production basis for strong growth in the field of high powered air-conditioning systems.
- 2002** Design and technology: Aermec launched Omnia a new generation of fancoils, designed for domestic applications. OMNIA is the result of co operation with a worldwide prestigious designer.
- 2004** The international market ask for number and Aermec answer. Giordano Riello make the producing system more technological. High producing, quality and assistance: the success of Aermec is going to continue.
- 2006** Aermec consolidated its presence in world markets with system appliances. A series of models to meet all design engineering requirements.
- 2008** Aermec responds with more and more efficient units to the world challenge of energy saving with a special attention for our environment.
- 2010** Aermec extends the use of inverter technology on its fancoils and chillers.  
The perfect integration of the new inverter technology with the most sophisticated control systems is best expressed in the VMF (Variable Multi Flow) Hydronic System - anew way to interpret comfort in the home and elsewhere.
- 2011** Aermec turns 50. The company has developed and enlarged, always willing to understand and anticipate the needs of the market with innovative and quality products.  
Quality in innovation, in products, in pre-sales and after-sales services.  
Promotion of the philosophy of "integrated design" between designer and architect.  
Past success represents the commitment to the future.

FAN COILS		Air flow rate (m <sup>3</sup> /h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
<b>With cabinet; universal installation</b>					
FCZ	on/off	110-1300	0,6-6,8	0,7-15,5	12
FCZI	Inverter	140-1140	0,8-6,0	1,0-13,9	20
Omnia HL	on/off	80-460	0,5-2,8	0,5-5,9	28
Omnia UL	on/off	80-460	0,5-2,8	0,5-5,9	30
Omnia ULI	Inverter	110-460	0,7-2,8	0,8-5,9	32
Omnia Radiant	on/off or inverter with radiant panel	190-460	1,4-2,8	2,7-5,9	34
<b>Without cabinet; concealed ceiling installation with low static pressure</b>					
FCZ_P	on/off	110-1300	0,6-6,8	0,7-15,5	38
FCZI_P	Inverter	140-1140	0,8-6,0	1,0-13,9	50
Omnia UL_P	on/off	80-460	0,5-2,8	0,5-5,9	62
Omnia ULI_P	Inverter	110-460	0,7-2,8	0,7-5,9	64
<b>Without cabinet; duct installation with high static pressure</b>					
VED (030-340)	on/off with static pressure 21-66Pa	160-805	0,9-5,3	0,9-10,9	66
VED (430-741)	on/off with static pressure 24-75Pa	750-2410	4,7-16,1	5,2-32,7	70
VED_I (030-340)	Inverter with static pressure 21-66Pa	160-805	0,9-5,3	0,9-10,9	74
VED_I (530-741)	Inverter with static pressure 32-69Pa	1060-2410	6,16-16,0	6,8-31,7	78
VES (030-340)	on/off with static pressure 21-66Pa	160-805	1,2-5,7	1,1-10,9	82
VES_I (030-340)	Inverter with static pressure 21-66Pa	160-805	1,3-5,7	1,1-10,9	86
VES_I (5300-7400)	Inverter with static pressure 29-60Pa	640-1650	4,4-11,8	5,9-25,4	90
<b>Cassette; ceiling installation</b>					
VEC	on/off with coanda effect	130-613	0,8-4,3	0,9-9,2	92
VEC_I	Inverter with coanda effect	130-613	0,8-4,3	0,9-9,2	94
FCL	on/off	260-1750	1,2-11	1,1-21,8	96
FCLI	Inverter	260-1750	1,2-11	1,1-21,8	100
<b>With cabinet; wall installation</b>					
FCW	on/off	270-684	1,1-4,1	1,4-8,6	104
<b>With cabinet; featuring germicidal lamp</b>					
FHX	on/off for ambients with highest hygiene levels	140-1140	0,8-6,9	0,9-15,1	106
<b>Fan coil installation, control and supervision devices</b>					
MZC	Multi-duct fan coil distribution plenum	-	-	-	110
PMZ	Multi-duct fan coil distribution plenum	-	-	-	112
Ventilcassaforma	Template for recessed fan coil installation	-	-	-	114
Terminali utente	Control devices for fan coils	-	-	-	116
VMF	Variable Multi Flow system	-	-	-	118
<b>Thermoconvectors</b>					
CLIMAFON	With cabinet for wall installation	-	-	0,9-2,5	122
CLIMABOX	With template for recessed installation	-	-	1,2-2,1	124

HEAT RECOVERY UNITS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
REPURO	With cross-flow exchanger	100-650	-	-	128
TRS	with enthalpy exchanger	170-1180	-	-	136
RPL	Countercurrent flow heat recovery unit	200-3900	-	-	138
RPLI	Countercurrent flow heat recovery unit inverter	200-3900	-	-	142
RPF	High performance version	200-4600	-	-	146
URX_CF	With cross-flow exchanger and refrigerant circuit	750-3300	-	-	150
URHE_CF	High efficiency version with cross-flow exchanger and refrigerant circuit	1000-3300	-	-	154
ERSR	High efficiency version with rotary recovery exchanger	1100-16100	-	-	158

AIR HENDLING UNITS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
<b>Compact air Hendling units</b>					
UFB20W	Floating floor installation	140-290	0,8-1,5	0,9-2,9	164
TUN	Air flow rate 900÷4000 m³/h	900-4000	4,7-29,4	11,2-51,1	166
TS	Air flow rate 930÷4200 m³/h	930-4200	4,8-24,8	9,8-52,0	170
TDA	Air flow rate 800÷3500 m³/h	800-3500	4,9-22,3	2,5-45,4	172
TA	Air flow rate 900÷5000 m³/h	900-5000	4,7-39,6	2,2-87,5	174
TN	Air flow rate 3000÷23000 m³/h	3000-23000	10,7-155,1	14,7-334,1	178

#### Modular air handling units

NCD	For hospitals	1134-79475	-	-	182
SPL 025-130	For wellness areas	2500-13000	-	-	186
SPL 160-250	For wellness areas	16000-25000	-	-	190
ENERGY	High energy efficiency version	3600-25000	-	-	194

#### Packaged roof-top units

RTX 01-08	For medium crowding applications	-	12,3-50	12,5-51,0	198
RTX 09-16	For medium crowding applications	-	51,6-131,9	50-133,9	202
RTX 17-23	For medium crowding applications	-	152-305	153-311	206
RTY 01-10	For high crowding applications	-	30-134,8	29,1-142,2	210
RTE 25-200	For application in small to medium size rooms	-	11,1-55,9	11,5-55,7	214
RTE 240-400	For application in medium size rooms	-	82,5-152,1	77,5-148	218
RTE 480-800	For application in medium to large size rooms	-	155,7-274,4	158,1-278,8	222

AIR / WATER CHILLERS AND HEAT PUMPS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
<b>Units with scroll compressors</b>					
ANKI 020H-045H	Reversible heat pump with inverter	-	5,8-12,0	6,0-12,3	228
ANLI 021H-101H	Reversible heat pump with inverter	-	5,7-42,3	6,1-32,9	232
HSI	Reversible inverter split heat pump	-	5,5-10,4	7,7-12,8	236
ANK 020H-150H	Reversible heat pump optimised for heating	-	6,8-39,9	7,8-35,9	240
SWP	Heat pump for hot water production (with reciprocating compressor)	-	-	1,9	244
ANL 020-202	Chiller, condensing unit	-	5,6-43,7	-	246
ANL 020-202H	Reversible heat pump	-	5,6-49,9	6,1-45,7	250
ANL 290-650	Chiller	-	54,5-132,9	-	254
ANL 290H-650H	Reversible heat pump	-	52,9-174,2	60,8-147,0	258
NRK 0090-0150	Reversible heat pump optimised for heating	-	18,3-40,6	20,2-34,6	262
NRK 0200-0700	Reversible heat pump optimised for heating	-	35,5-148,0	42,3-175,0	266
NRL 0280-0750	Chiller	-	52,6-193,6	-	270
NRL 0280H-0750H	Reversible heat pump	-	50,7-179,0	58,4-205,4	274
NRV 0550	Chiller	-	103,5-108,1	-	278
NRB 0800-3600	Chiller	-	217-1047	-	280
NRB 0800H-3600H	Reversible heat pump	-	196,0-969,3	210,0-1002,0	284
NRL 0800H-1800H	Reversible heat pump	-	183,0-470,0	228,0-526,0	288

AIR / WATER CHILLERS AND HEAT PUMPS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
<b>Units with scroll compressors and centrifugal or Plug Fans</b>					
CL 025-200	Chiller with Plug Fan	-	5,6-41,3	-	292
CL 025H-200H	Reversible heat pump with Plug Fan	-	6,3-38,3	7,8-44,0	296
NLC 0280-1250	Chiller with Plug Fan	-	52,1-318,4	-	300
NLC 0280H-1250H	Reversible heat pump with Plug Fan	-	52,0-315,6	56,5-349,1	304
<b>Units with screw compressors</b>					
NSM 1402-9603	Chiller	-	302-2100	-	308
NSMI 1402-4402	Chiller with Inverter screw compressors	-	285-1006	-	316
NSH 1251-3602	Reversible heat pump	-	250,0-730,0	282,0-789,0	320
<b>new</b> NSG 1402-9603	Chiller (with R1234ze)	-	-	-	324
<b>Units with centrifugal compressors</b>					
TBX 1401-4102	Chiller	-	259-861	-	332
AIR / WATER CHILLERS WITH FREECOOLING		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
<b>Units with scroll compressors</b>					
NRL 0280-0750F	Chiller with free cooling	-	59-194	-	338
<b>new</b> NRB 1800-3600F	Chiller with free cooling	-	212-1004	-	342
<b>new</b> NRB 1800-3600B	Chiller with free cooling glycol free	-	212-1004	-	350
NRV 0550F	Chiller with free cooling	-	99,9-105,4	-	358
<b>Units with screw compressors</b>					
NSM 1402-9603F	Chiller with free cooling	-	306-2028	-	360
NSM 1402-9603B	Chiller with free cooling glycol free	-	306-2028	-	368
NSM 1402-9603FW	Chiller with free cooling HWT	-	306-2001	-	376
NSM 1402-9603BW	Chiller with free cooling glycol free HWT	-	306-1991	-	384
NSMI 1251-4402F	Chiller with free cooling and Inverter Compressors	-	285-989	-	392
WATER / WATER CHILLERS AND HEAT PUMPS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
<b>Units with scroll compressors</b>					
VENICE	Chiller	-	6,9-9,7	-	398
VENICE H	Reversible heat pump	-	6,9-9,7	7,7-10,8	400
WRL 026-161	Chiller	-	6,2-44,7	-	402
WRL 026H-161H	Reversible heat pump	-	6,2-41,2	7,5-47,9	406
WRL 180-650	Chiller	-	50,0-173,0	-	410
WRL 180H-650H	Reversible heat pump	-	45,0-157,0	53,0-184,0	414
NXW 0500-1650	Chiller	-	111-510	-	418
NXW 0500H-1650H	Reversible heat pump	-	105,7-476,2	125,6-566,5	422
<b>Units with screw compressors</b>					
WS	Chiller reversible water side	-	134,5-699,0	-	426
HWS	Chiller reversible water side	-	146,4-712,0	-	430
WSH 0701-2502	Reversible heat pump	-	166,0-668,0	190,0-819,0	434
WF 2512-6412	Chiller reversible water side	-	547-1549	-	438
HWF 2512-6412	Chiller reversible water side	-	540-1524	-	442
<b>new</b> WFG 2512-6412	Chiller reversible water side	-	547-1549	-	446
<b>Units with centrifugal compressors</b>					
WMX - WMG	Chiller (WMX with R134a - WMG with R1234ze)	-	280-324	-	450
TW 110	Chiller	-	284	-	452
<b>new</b> WTX	Chiller	-	280-324	-	454
MULTI-PURPOSE		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
NRP 0200-0750	Multi-Purpose	-	43,0-184,0	46,0-206,0	460
NRP 0800-1800	Multi-Purpose	-	199,0-475,0	242,0-547,0	464
NXP 0500-1650	Multi-Purpose	-	109,0-501,0	123,0-560,0	468

PRECISION AIR CONDITIONING		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
P	Direct expansion (air or water cooled); chilled water	-	7,7-186,9	-	474
G	Direct expansion (air or water cooled); chilled water	-	43,0-183,5	-	478
R (in Rack)	Direct expansion (air or water cooled); chilled water	-	20,3-36,2	-	482
UFB20	Booster unit for floating floor installation	140-740	-	-	486

ROOM AIR CONDITIONERS		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
<b>Monosplit</b>					
SK	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-7,0	3,0-7,3	490
SE	Reversible heat pump	-	2,5-6,4	2,7-7,0	492
SC	Reversible heat pump with	-	12,0	13,6	494
FK	Packaged Air Conditioner	-	2,7-3,6	-	496
COMPACT	Packaged heating pump without outdoor unit	-	2,3	2,3	498
CK	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-5,2	2,7-5,5	500
LCI	Reversible heat pump	-	3,5-16,0	3,8-17,0	502
MVA	Reversible heat pump	-	22,4-28	25-30	506
<b>Multisplit</b>					
MKM	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	4,1-12,1	4,4-13,0	508

VRF SYSTEM		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
MVA	Reversible heat pump	-	12,0-180,0	14,0-200,0	518

COMPLEMENTARY PRODUCTS		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
<b>Thermal Buffer tank</b>					
SAF	DHW Thermal Buffer tank	-	-	-	528
SAP	Buffer tank with capacity from 75 to 3500 litres	-	-	-	530
<b>Plug&amp;Play hydronic kit</b>					
WST	Hydronic kit plug & play solution	-	82,2-283,9	-	534
<b>Cooling towers</b>					
TRA	Cooling towers	-	-	-	538
<b>Remote condensers - Dry coolers</b>					
CSE-CDR-CVR-CGA-CMV-CVR	Remote condensers	-	-	-	540
WTE-WTR-WDR-WTS-WTA	Dry coolers	-	-	-	552
<b>Water cooled condensing unit</b>					
MEC-W	Water-cooled packaged air conditioners	-	11,0-55,0	-	560
FW-R	Water-cooled air conditioners	-	2,9-4,0	4,3-5,2	562
CWX	Water cooled condensing unit	-	3,5-6,7	-	564
<b>Dehumidifier</b>					
SMUFFO	Portable dehumidifier	-	-	-	568
DMP	Recessed dehumidifier for use with underfloor systems	-	-	-	570

## FAN COILS

Aermec and fancoils: complementary names where the company identifies and product and vice versa. In this area of climate control, Aermec is real leader: a major company in Italy and one of the top in Europe. A leading position gained through long-standing experience that has gained ground year after year. Special attention to detail, quality materials state-of-the-art technology ensure optimal performance with virtually imperceptible noise levels, especially at low speed; attention paid to dimensions and overall size, comparable to those of standard radiators, to enable installation in all residential and commercial environments; exclusive design, anticipating trends and in harmony with interior design requirements; new electronic control panel to enable automatic operation and achieve the most user-friendly climatizers to date. Aermec fancoils boast all these features and more.



FAN COILS		Air flow rate (m³/h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
<b>With cabinet; universal installation</b>					
FCZ	on/off	110-1300	0,6-6,8	0,7-15,5	12
FCZI	Inverter	140-1140	0,8-6,0	1,0-13,9	20
Omnia HL	on/off	80-460	0,5-2,8	0,5-5,9	28
Omnia UL	on/off	80-460	0,5-2,8	0,5-5,9	30
Omnia ULI	Inverter	110-460	0,7-2,8	0,8-5,9	32
Omnia Radiant	on/off or inverter with radiant panel	190-460	1,4-2,8	2,7-5,9	34
<b>Without cabinet; concealed ceiling installation with low static pressure</b>					
FCZ_P	on/off	110-1300	0,6-6,8	0,7-15,5	38
FCZI_P	Inverter	140-1140	0,8-6,0	1,0-13,9	50
Omnia UL_P	on/off	80-460	0,5-2,8	0,5-5,9	62
Omnia ULI_P	Inverter	110-460	0,7-2,8	0,7-5,9	64
<b>Without cabinet; duct installation with high static pressure</b>					
VED (030-340)	on/off with static pressure 21-66Pa	160-805	0,9-5,3	0,9-10,9	66
VED (430-741)	on/off with static pressure 24-75Pa	750-2410	4,7-16,1	5,2-32,7	70
VED_I (030-340)	Inverter with static pressure 21-66Pa	160-805	0,9-5,3	0,9-10,9	74
VED_I (530-741)	Inverter with static pressure 32-69Pa	1060-2410	6,16-16,0	6,8-31,7	78
VES (030-340)	on/off with static pressure 21-66Pa	160-805	1,2-5,7	1,1-10,9	82
VES_I (030-340)	Inverter with static pressure 21-66Pa	160-805	1,3-5,7	1,1-10,9	86
VES_I (5300-7400)	Inverter with static pressure 29-60Pa	640-1650	4,4-11,8	5,9-25,4	90
<b>Cassette; ceiling installation</b>					
VEC	on/off with coanda effect	130-613	0,8-4,3	0,9-9,2	92
VEC_I	Inverter with coanda effect	130-613	0,8-4,3	0,9-9,2	94
FCL	on/off	260-1750	1,2-11	1,1-21,8	96
FCLI	Inverter	260-1750	1,2-11	1,1-21,8	100
<b>With cabinet; wall installation</b>					
FCW	on/off	270-684	1,1-4,1	1,4-8,6	104
<b>With cabinet; featuring germicidal lamp</b>					
FHX	on/off for ambients with highest hygiene levels	140-1140	0,8-6,9	0,9-15,1	106
<b>Fan coil installation, control and supervision devices</b>					
MZC	Multi-duct fan coil distribution plenum	-	-	-	110
PMZ	Multi-duct fan coil distribution plenum	-	-	-	112
Ventilcassaforma	Template for recessed fan coil installation	-	-	-	114
Terminali utente	Control devices for fan coils	-	-	-	116
VMF	Variable Multi Flow system	-	-	-	118
<b>Thermoconvectors</b>					
CLIMAFON	With cabinet for wall installation	-	-	0,9-2,5	122
CLIMABOX	With template for recessed installation	-	-	1,2-2,1	124

## FCZ

Fan coils  
Universal and floor installation



Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Variable Multi Flow®**

VMF



FCZ\_D Dualjet



FCZ\_A



ThermApp



Programming  
via smart devices  
using Therm App



Electronic T-Touch controller

FCZ\_U



- **EXTREMELY SILENT OPERATION**
- **ADVANCED CONTROLLER ALLOWING PROGRAMMING VIA SMART DEVICES**
- **DUALJET VERSION FOR HIGHEST FOUR-SEASON COMFORT**

### Features

Drawing from its wide experience in the field of fan coils, Aermec presents the new FCZ series: elegant design goes hand in hand with low noise and notable energy savings. FCZ can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures. Thanks to numerous configurations and models Aermec offers the ideal solution for any need.

#### Versions

##### Without installed controller,

##### Vertical or horizontal installation:

FCZ\_U  
FCZ\_UA

##### Vertical installation:

FCZ\_DS  
FCZ\_AS

##### With installed controller

##### Vertical installation:

FCZ\_D  
FCZ\_A  
FCZ\_ACT  
FCZ\_APC

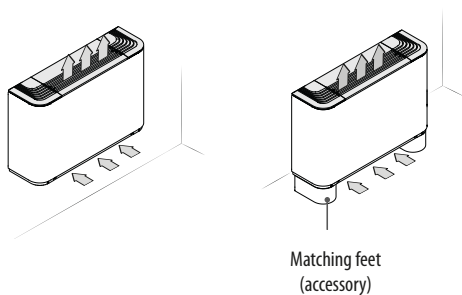
- housing RAL9003, grille/feet RAL 7047
- 3-speed fan.
- Electric motors with permanently inserted condensers
- Metallic protective cabinet with rustproofing polyester paint
- Adjustable air distribution grille (U version)
- Automatic power-off function with closure of the air delivery grille, (U version)
- Low pressure drop coil
- Easy installation and maintenance
- **G2** air filter for all versions. **APC versions equipped with Plasmacluster purifier**
- Extractable shrouds for easy, effective cleaning
- The hydraulic connections can be inverted


during installation (only valid for units with a single coil, those with a supplementary coil cannot be inverted).

- **The ThermApp application (applicable with T-TOUCH controller) operates by simply placing a smart device on the fan coil. The App allows working mode and time schedule programming, sleep mode activation, alarm listing, etc. ThermApp is available for Android Operating Systems.**

## Configurations available

### With fixed grille (vertical free-standing) - A

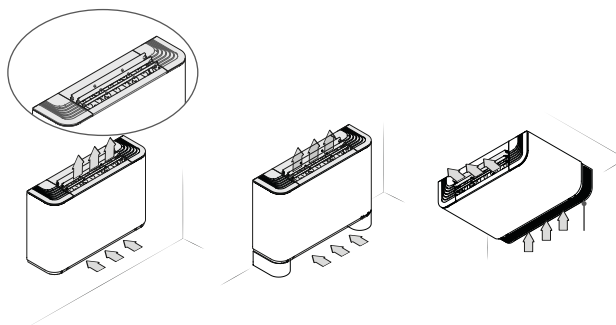


- **FCZ\_A**
  - With switch
- **FCZ\_AS**
  - Without installed controller
  - Compatible with VMF system
- **FCZ\_ACT**
  - With electronic controller (for 2 pipe systems)
- **FCZ\_APC** 
  - With electronic controller (for 2 pipe systems)
  - with Plasmacluster purifier

**Vertical installation only**  
- For 2/4 pipe systems

### With adjustable/fixed grille (Universal) - U

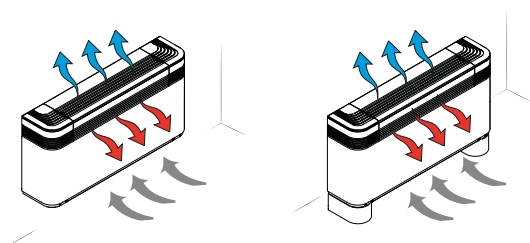
#### With adjustable air distribution grille - U



- **FCZ\_U**
    - Without installed controller
    - Compatible with VMF system
    - Adjustable grille
      - Single for size 1-2-3
      - Three independent for sizes 4-5-6-7-8
- With the flap completely closed the unit is off**

**Vertical or horizontal installation**  
- For 2/4 pipe systems

### With double flow (Dualjet) - D



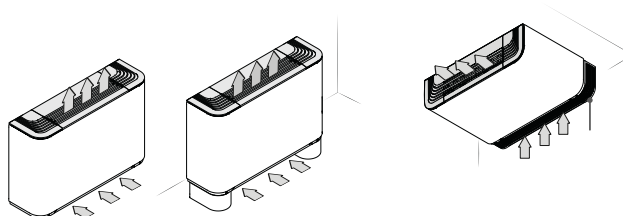
**Dualjet, unique to Aermec, offers notably improved seasonal comfort by directing the air flow according to the season. In winter warm air is directed towards the floor; in summer cool air is directed towards the ceiling.**

- **FCZ\_D** With installed controller
- **FCZ\_DS** Without installed controller

FCZ\_DS units are compatible with the T-TOUCH controller and VMF system, (contact Aermec for further details)  
- The air supply orientation (frontal or top) is adjusted by acting directly on the grille.

**Vertical installation only**  
- For 2 pipe system (4 pipe system with VCF\_X4, VMF system or T-TOUCH)

### With fixed air distribution grille - UA



- **FCZ\_UA**
  - Without installed controller
  - Compatible with VMF system
  - Fixed grille

**Vertical or horizontal installation**  
- For 2/4 pipe systems

## Unit selection

By appropriately combining the variety of options available, each model can be configured in order to meet all specific system requirements.

Field	Code	7,8	Versions
1,2,3	FCZ		<b>D</b> Dualjet with installed controller
4	Size		<b>DS</b> Dualjet without installed controller
	1-2-3-4-5-6-7-8-9-10		<b>A</b> Free standing with switch
5	Main coil		<b>AS</b> Free standing without switch
	0 Standard		<b>ACT</b> Free standing with electronic controller
	5 Oversized (1)		<b>APC</b> Free standing, electronic controller and Plasmacluster purifier
6	Supplementary coil		<b>U</b> Universal with adjustable grille, without installed controller
	0 Without coil		<b>UA</b> Universal with fixed grille without installed controller
	1 Standard		
	2 Oversized		

(1) Oversized coil "5" does not allow the installation of the supplementary coil "1 or 2"

## Size available by version

Versions	Size available with main coil only (2 pipes)																			
FCZ	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
A	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
AS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
ACT	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
APC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
D	/	/	•	/	•	/	•	/	•	/	/	/	/	/	/	/	/	/	/	
DS	/	/	•	/	•	/	•	/	•	/	/	/	/	/	/	/	/	/	/	

Versions	Size available with main and supplementary coil (4 pipes)																		
FCZ	101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001	
A	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
AS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
ACT	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
APC	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
D	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	
DS	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	

## Accessories

### Control Panel

- T-TOUCH:** Touch controller mounted on-board. allows remote control with (Android) smart devices using the ThermApp application.

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

### Probes and accessories for control panels

- SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- SIT 3 - 5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

### VMF system

- VMF-E0:** thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe, 2 pipe + Plasmacluster, 2 pipe + UV lamps, 2 pipe + electrical heater systems. Equipped with external contact to be

used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.

- VMF-E2Z:** User interface for mounting on the unit with two selectors: one to control the temperature and one for the speed.
- VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- VMF-E1:** Thermostat for serial communication.
- VMF-SW:** Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

### Hot water coil

- BV:** Single row hot water heat exchanger. Not available for versions with Plasmacluster.

### Electrical heater

- RX:** Armoured electrical coil with safety thermostat (requires a thermostat with heater management). Not available for 4-row or Plasmacluster versions

### Valve kit

- VCZ\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- VCZ or VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.

- VCZD or VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.

- VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

The VJP is controlled by on-off logic with compatible control panels (accessories)

The VJP\_M is controlled by modulating logic with panels not supplied by Aermec

The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

### Installation accessories

- AMP:** Wall mounting kit.
- DSC4:** Condensate drainage device applied where natural run-off is not possible.
- GA:** Grille to hide hydraulics and electrics on ceiling mounted units; also applicable for floor installation.
- PCZ:** Sheet metal panel to close rear of unit
- ZXZ:** Mounting feet (set of 2).

Refer to dedicated product Leaflet for further details concerning control panel and VMF System.

## Compatibility of accessories

		Single coil model																		
FCZ		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Probes and accessories for control panels																				
T-TOUCH	AS-U-UA-DS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTLM	AS-U-UA	•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	•	•	•
PTINZ	AS-U-UA-DS	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PX-PX2-PX2C6	AS-U-UA (1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE-PXAR	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05-06-10	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	AS-U-UA	In combination with FMT21																		
SW3	AS-U-UA	In combination with PXAE or PXAR																		
SIT3	AS-U-UA	In combination with FMT21 or PXAE o PXAR or PX2 or PX or PX2C6 WMT05-06-10																		
SIT5	AS-U-UA	In combination with FMT21 or PXAE or PXAR																		
VMF System																				
VMF-E0	AS-U-UA-DS*	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	AS-U-UA-DS*	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)																				
BV117	A-AS-U-UA	•																		
BV122	A-AS-U-UA			•																
BV132	A-AS-U-UA					•														
BV142	A-AS-U-UA							•		•										
BVZ800	A-AS-U-UA											•		•		•				
BV162	A-AS-U-UA																	•		•
Electrical Heat Exchanger																				
RX17	AS-U-UA	•																		
RX22	AS-U-UA			•																
RX32	AS-U-UA					•														
RX42	AS-U-UA							•												
RX52	AS-U-UA									•										
RXZ800	AS-U-UA											•		•		•				
RX62	AS-U-UA																	•		•
Water valves **																				
Valve Kit for 4 pipe systems with main coil																				
VCZ1X4L-R	AS-U-UA (DS+sist. VMF or T-TOUCH)	•	•	•	•															
VCZ2X4L-R	AS-U-UA (DS+sist. VMF or T-TOUCH)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ3X4L-R	AS-U-UA (DS+sist. VMF or T-TOUCH)																	•	•	•
3 way valve kit																				
VCZ41/4124	AS-ACT-APC-U-UA-D-DS (2)	•	•	•	•															
VCZ42/4224	AS-ACT-APC-U-UA-D-DS (2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ43/4324	AS-ACT-APC-U-UA-D-DS (2)																	•	•	•
2 way valve kit																				
VCZD1/124	AS-ACT-APC-U-UA-D-DS (2)	•	•	•	•															
VCZD2/224	AS-ACT-APC-U-UA-D-DS (2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZD3/324	AS-ACT-APC-U-UA-D-DS (2)																	•	•	•
Combined adjustment and balancing valve independent of pressure																				
VJP060	AS-ACT-APC-U-UA-D-DS	•	•	•	•	•	•													
VJP090	AS-ACT-APC-U-UA-D-DS							•	•	•	•	•	•							
VJP150	AS-ACT-APC-U-UA-D-DS												•	•	•	•	•	•	•	•
VJP060M	AS-ACT-APC-U-UA-D-DS (2)	•	•	•	•	•	•													
VJP090M	AS-ACT-APC-U-UA-D-DS (2)							•	•	•	•	•	•							
VJP150M	AS-ACT-APC-U-UA-D-DS (2)												•	•	•	•	•	•	•	•
Installation accessories																				
AMP20	U-UA	•	•	•	•	•	•	•	•	•	•									
AMPZ	U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	All (3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Panel to close rear of unit																				
PCZ100	All	•	•																	
PCZ200	All			•	•															

For further details concerning control panels and VMF system refer to the dedicated sheets.

\* Contact Aermec

\*\*The water valves can be combined with the unit if it is also provided a control panel that controls

PTINZ e PX2Z Only for wall installation

(1) Only for wall installation; PX2C6 panel PX2 in multiples of 6

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V

(3) DSC4 is not available with AMPZ

## Compatibility of accessories

		Single coil model																		
FCZ		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
PCZ300	All					•	•													
PCZ500	All							•	•	•	•									
PCZ800	All											•	•	•	•	•	•			
PCZ1000	All																	•	•	•
Grille for ceiling mounted units																				
GA100	U-UA	•	•																	
GA200	U-UA			•	•															
GA300	U-UA					•	•													
GA500	U-UA							•	•	•	•									
GA800	U-UA											•	•	•	•	•	•	•	•	•
Mounting feet																				
ZXZ		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

		Twin coil models																		
FCZ		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001	
Probes and accessories for control panels																				
T-TOUCH	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
KTLM	AS-U-UA	•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	*	*	*
TPF	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT06-10	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	AS-U-UA	In combination with FMT21																		
SIT3	AS-U-UA	In combination with FMT21																		
SIT5	AS-U-UA	In combination with FMT21																		
VMF System																				
VMF-E0	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U-UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Water valves **																				
3 way valve kit																				
VCZ41/4124	AS-U-UA	(2)	•	•	•	•														
VCZ42/4224	AS-U-UA	(2)				•	•	•	•	•	•	•	•	•	•	•	•			
VCZ43/4324	AS-U-UA	(2)																•	•	
2 way valve kit																				
VCZD1/124	AS-U-UA	(2)	•	•	•	•														
VCZD2/224	AS-U-UA	(2)				•	•	•	•	•	•	•	•	•	•	•	•			
VCZD3/324	AS-U-UA	(2)																•	•	
3 way valve kit for heating coil only																				
VCF44/4424	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
VCF45/4524	AS-U-UA																	•	•	
2 way valve kit for heating coil only																				
VCFD4/424	AS-U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure																				
VJP060	AS-U-UA		•	•	•	•	•													
VJP090	AS-U-UA							•	•	•	•	•	•							
VJP150	AS-U-UA											•	•	•	•	•	•	•	•	•
VJP060M	AS-U-UA	(2)	•	•	•	•	•													
VJP090M	AS-U-UA	(2)						•	•	•	•	•	•							
VJP150M	AS-U-UA	(2)										•	•	•	•	•	•	•	•	•
Installation accessories																				
AMP20	U-UA		•	•	•	•	•	•	•	•	•									
AMPZ	U-UA		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Panel to close rear of unit																				
PCZ100	All		•	•																
PCZ200	All			•	•															
PCZ300	All					•	•													
PCZ500	All							•	•	•	•									
PCZ800	All											•	•	•	•	•	•			
PCZ1000	All																	•	•	•
Grille for ceiling mounted units																				
GA100	U-UA	•	•																	
GA200	U-UA			•	•															
GA300	U-UA					•	•													
GA500	U-UA							•	•	•	•									
GA800	U-UA											•	•	•	•	•	•	•	•	•
Mounting feet																				
ZXZ	All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

For further details concerning control panels and VMF system refer to the dedicated sheets.

\* Contact Aermec

\*\*The water valves can be combined with the unit if it is also provided a control panel that controls

VJP / VJP\_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow

### Technical data - unit with single coil

FCZ	100			150			200			250			300			350			400			450			500			550				
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L					
Heating Performance																																
2 pipe systems																																
Heating capacity (70°C)	(1)	kW	2,40	2,00	1,46	2,65	2,19	1,55	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57	8,50	7,31	5,27	9,75	8,34	5,82
Water flow rate	(1)	l/h	206	172	125	228	188	133	318	253	173	348	273	189	473	383	298	529	423	324	615	493	371	672	532	393	731	629	453	838	717	500
Pressure drop	(1)	kPa	9	6	4	14	10	6	20	13	7	31	20	11	17	12	7	28	19	12	32	21	11	22	13	9	42	42	42	33	25	14
Heating capacity (45°C)	(2)	kW	1,19	0,99	0,72	1,31	1,09	0,77	1,84	1,46	1,00	2,01	1,58	1,09	2,73	2,21	1,72	3,06	2,44	1,87	3,55	2,85	2,14	3,88	3,12	2,27	4,22	3,63	2,62	4,85	4,14	2,89
Water flow rate	(2)	l/h	207	173	126	229	189	134	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394	734	631	455	842	720	502
Pressure drop	(2)	kPa	9	7	4	12	9	5	17	12	6	22	15	8	17	12	8	20	14	8	23	16	9	16	11	6	28	21	12	25	19	10
Cooling Performance																																
Total cooling capacity	(3)	kW	1,00	0,84	0,65	1,27	1,06	0,80	1,60	1,28	0,89	1,94	1,55	1,06	2,65	2,17	1,68	3,02	2,46	1,89	3,60	2,92	2,21	4,03	3,21	2,41	4,25	3,69	2,68	4,79	4,13	2,91
Sensible cooling capacity	(3)	kW	0,83	0,69	0,51	0,97	0,80	0,57	1,33	1,05	0,71	1,52	1,20	0,79	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,90	2,30	1,69	3,18	2,73	1,94	3,49	2,98	2,07
Water flow rate	(3)	l/h	172	144	112	219	182	138	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414	731	634	460	824	711	501
Pressure drop	(3)	kPa	8	6	4	13	12	6	18	12	6	25	17	8	18	12	8	25	17	11	24	16	10	22	15	9	29	22	13	28	21	11
Fans																																
Centrifugal Fans	n°	1						1						2						2						2						
Air flow rate	m³/h	200	160	110	200	160	110	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	720	600	400	720	600	400	
Sound level																																
Sound power level	(4)	dB(A)	45	38	31	45	38	31	51	46	35	51	46	35	48	41	34	48	41	34	51	44	37	51	44	37	56	51	42	56	51	42
Sound pressure level		dB(A)	37	30	23	37	30	23	43	38	27	43	38	27	40	33	26	40	33	26	43	36	29	43	36	29	48	43	34	48	43	34
Hydraulic connections																																
Main coil																																
Standard	Ø	1/2"			/			1/2"			/			3/4"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			1/2"			/			1/2"			/			3/4"			/			3/4"			/			3/4"			
Electrical data																																
Absorbed power	W	35	29	19	35	29	19	33	29	25	33	29	25	44	33	25	44	33	25	57	43	30	57	43	30	76	52	38	76	52	38	
Connected for speeds		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply		230V~50Hz																														

FCZ	600			650			700			750			800			850			900			950			1000						
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L				
Hating Performance																															
2 pipe systems																															
Heating capacity (70°C)	(1)	kW	10,00	8,10	6,50	11,50	9,15	7,19	11,00	9,80	8,10	12,50	11,30	9,10	12,00	10,80	9,80	14,00	12,35	11,30	15,14	13,35	10,77	17,10	14,42	11,20	17,02	15,24	12,56		
Water flow rate	(1)	l/h	877	710	570	1008	802	631	946	843	696	1075	972	782	1032	929	843	1204	1062	972	1328	1171	945	1500	1295	982	1493	1337	1101		
Pressure drop	(1)	kPa	26	18	12	31	20	13	37	30	21	20	16	11	42	35	29	24	19	16	21	16	11	32	23	15	43	34	24		
Heating capacity (45°C)	(2)	kW	4,97	4,03	3,23	5,72	4,55	3,57	5,47	4,87	4,03	6,21	5,62	4,52	5,97	5,37	4,87	6,96	6,14	5,62	7,53	6,64	5,35	8,50	7,17	5,57	8,46	7,58	6,24		
Water flow rate	(2)	l/h	863	699	561	993	790	621	950	846	699	1079	975	786	1036	932	846	1209	1066	975	1307	1152	930	1476	1245	967	1469	1316	1084		
Pressure drop	(2)	kPa	25	17	12	31	20	13	29	23	16	17	14	10	32	26	22	25	19	17	21	17	12	33	24	15	37	31	22		
Cooling Performance																															
Total cooling capacity	(3)	kW	4,65	3,90	3,22	5,67	4,80	3,95	5,50	4,89	3,92	6,14	5,34	4,27	6,10	5,66	4,84	6,91	6,29	5,26	6,91	5,00	4,29	8,60	7,32	5,77	7,62	6,88	5,69		
Sensible cooling capacity	(3)	kW	3,92	3,17	2,56	4,12	3,43	2,78	4,30	3,76	2,99	4,72	4,05	3,20	4,83	4,42	3,72	5,36	4,83	4,00	5,68	3,78	2,97	5,78	4,87	3,80	5,53	5,34	4,42		
Water flow rate	(3)	l/h	800	671	554	975	825	595	946	841	675	1056	918	734	1049	974	833	1189	1082	904	1189	860	738	1479	1259	992	1311	1183	979		
Pressure drop	(3)	kPa	26	19	13	28	21	15	30	24	16	18	14	10	30	26	20	23	19	14	22	12	9	30	22	15	37	31	22		
Fans																															
Fans Centrifugal	n°	3						3						3						3						3					
Air flow rate	m³/h	920	720	520	920	720	520	1140	930	700	1140	930	700	1300	1120	900	1300	1120	900	1140	930	700	1140	930	700	1300	1120	900	1300	1120	900
Sound level																															
Sound power level	(4)	dB(A)	57	51	42	57	51	42	62	57	50	62	57	50	66	61	56	66	61	56	62	57	51	61	57	51	66	61	56		
Sound pressure level		dB(A)	49	43	34	49	43	34	54	49	42	54	49	42	58	53	48	58	53	48	54	49	43	53	49	43	58	53	48		
Hydraulic connections																															
Main coil																															
Standard	Ø	3/4"			/			3/4"			/			3/4"			/			3/4"			/			3/4"			/		
Oversized	Ø	/			3/4"			/			3/4"			/			3/4"			/			3/4"			/			/		
Electrical data																															
Absorbed power	W	91	60	38	91	60	38	106	80	59	106	80	59	131	100	80	131	100	80	106	80	59	106	80	59	131	100	80	131	100	80
Connected for speeds		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply	V/ph/Hz													230V~50 Hz																	

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.: Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level: based on measurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume  $V=85\text{m}^3$ , reverberation time  $t = 0.5 \text{ s}$ ; Direction factor  $Q = 2$ ; Distance  $r = 2.5\text{m}$



117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

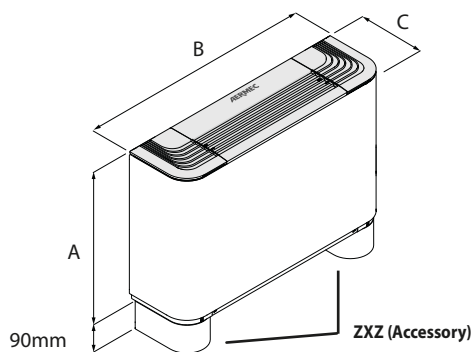
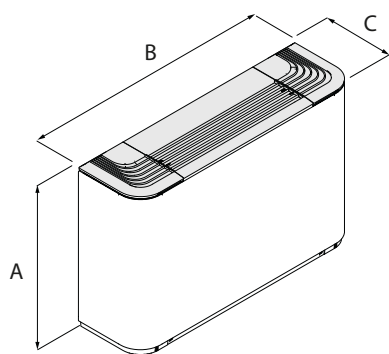
---

(2) Room air temperature 27°C d.b./19°C w.b.: Water (in/out) 7°C/12°C (EUROVENT)

Sound pressure level (A-weighted) measured indoors with volume  $V=85\text{m}^3$ , reverberation time  $t=0.5\text{ s}$ ; Direction factor  $Q=2$ ; Distance  $r=2.5\text{ m}$



## Dimensions and Weights



FCZ		100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
<b>Dimensions for all versions</b>																					
A	mm			486				486				486				486				486	
A (with feet)	mm			576				576				576				576				576	
B	mm			640				750				980				1200				1200	
C	mm			220				220				220				220				220	
Weight without feet	kg	13	14	14	14	15	15	16	16	17	18	19	19	23	23	24	24	22	23	24	24
FCZ		600	601	602	650	700	701	702	750	800	801	802	850	900	901	/	950	1000	1001	/	/
<b>Dimensions for all versions</b>																					
A	mm			486				486				486				591				591	
A (with feet)	mm			576				576				576				681				681	
B	mm			1320				1320				1320				1320				1320	
C	mm			220				220				220				220				220	
Weight without feet	kg	29	31	33	33	29	31	33	33	29	29	31	33			34				34	

## FCZI

Fan coils with Inverter Brushless motor (EC)  
Universal and floor installation



Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Variable Multi Flow®**

VMF



FCZI\_D Dualjet



FCZI\_ACT



ThermApp



Programming  
via smart devices  
using Therm App



Electronic T-Touch controller

FCZI\_U



- **ELECTRIC SAVING EQUAL TO 50% COMPARED TO A FAN COIL WITH 3-SPEED MOTOR**
- **ADVANCED CONTROLLER ALLOWING PROGRAMMING VIA SMART DEVICES**
- **DUALJET VERSION FOR HIGHEST FOUR-SEASON COMFORT**

### Features

Drawing from its wide experience in the field of fan coils, Aermec presents the new FCZI series: the elegant design goes hand in hand with low noise and important energy savings.

Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems. This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors). In term of noise, in any operating condition exceptional values have been observed.

FCZI can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

#### Versions without installed controller,

##### Vertical or horizontal installation:

FCZI\_U

##### Vertical installation:

FCZI\_AS

#### With installed controller,

##### Vertical installation:

FCZI\_DT

FCZI\_D

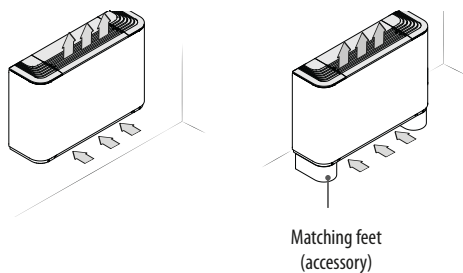
FCZI\_ACT

- housing RAL9003, grille/feet RAL 7047
- Brushless motor with 0-100% speed continuous variation to guarantee best performance at very low sound level
- Centrifugal fan designed to guarantee continuous modulation of the air flow rate and to increase comfort and electric saving.
- Metallic protective cabinet with rustproofing polyester paint
- Adjustable air distribution grille (U version)
- Automatic power-off function with closure of the air delivery grille, (U version)
- Low loss of charge in the heat exchanger

- Easy installation and maintenance
- G2 air filter for all versions.
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase
- **The ThermApp application (applicable with T-TOUCH controller) operates by simply placing a smart device on the fan coil. The App allows working mode and time schedule programming, sleep mode activation, alarm listing, etc. ThermApp is available for Android Operating Systems.**

## Configurations available

### With fixed grille (vertical free-standing) - A



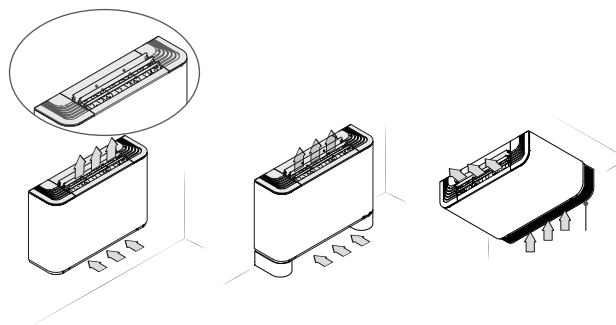
- **FCZ\_AS**  
Without installed controller  
- Compatible with VMF system
- **FCZ\_ACT**  
- With electronic controller (for 2 pipe systems)

#### Vertical installation only

- For 2/4 pipe systems

### With adjustable/fixed grille (Universal) - U

#### With adjustable air distribution grille - U



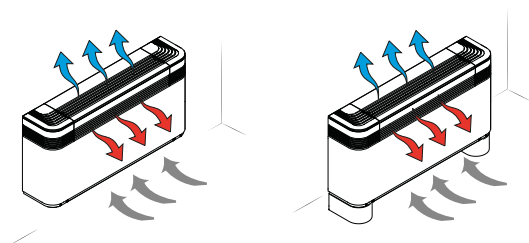
- **FCZI\_U**  
- Without installed controller  
- Compatible with VMF system  
- Adjustable air distribution grille  
Single for size 2-3  
Three independent for sizes 4-5-7

**With the flap completely closed the unit is off**

#### Vertical or horizontal installation

- For 2/4 pipe systems

### With double flow (Dualjet) - D



**Dualjet, unique to Aermec, offers notably improved seasonal comfort by directing the air flow according to the season. In winter warm air is directed towards the floor; in summer cool air is directed towards the ceiling.**

- **FCZI\_D** With installed controller
- **FCZI\_DT** With installed controller T-Touch

FCZ\_D units are compatible with the the VMF system, in this case you will need to contact the headquarter

- You can change the air supply orientation, frontal or from above, by acting directly on the adjustable grid.

#### Only vertical installation

- For 2 pipe system (4 pipe system with VCF\_X4, VMF system or FCZI\_DT)

## Unit selection

By appropriately combining the variety of options available, each model can be configured in order to meet all specific system requirements.

<b>Field</b>	<b>Code</b>
<b>1,2,3,4</b>	<b>FCZI</b>
<b>5</b>	<b>Size</b>
	2-3-4-5-7-9
<b>6</b>	<b>Main coil</b>
	0 Standard
	5 Oversized (1)
<b>7</b>	<b>Supplementary coil</b>
	0 Without coil
	1 Standard
	2 Oversized
<b>8,9</b>	<b>Versions</b>
	D Dualjet with installed controller
	DT With installed controller T-Touch
	AS Free standing without installed switch
	ACT Free standing with electronic controller
	U Universal with adjustable grille, without installed controller

(1) Oversized coil "5" does not allow the installation of the supplementary coil "1 or 2"

## Size available for version

Versioni	Size available main coil only (2 pipes)											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
AS	.	.	.	.	.	.	.	.	.	.	.	.
ACT	.	.	.	.	.	.	.	.	.	.	.	.
U	.	.	.	.	.	.	.	.	.	.	.	.
D	.	/	.	/	.	/	.	/	/	/	/	/
DT	.	/	.	/	.	/	.	/	/	/	/	/

Versioni	Size available main and supplementary coil (4 pipes)											
FCZI	201	202	301	302	401	402	501	502	701	702	901	
AS	.	.	.	.	.	.	.	.	.	.	.	.
ACT	.	.	.	.	.	.	.	.	.	.	.	.
U	.	.	.	.	.	.	.	.	.	.	.	.
D	/	/	/	/	/	/	/	/	/	/	/	/
DT	/	/	/	/	/	/	/	/	/	/	/	/

## Accessories

**T-TOUCH-I:** Touch controller mounted on-board. allows remote control with (Android) smart devices using the ThermApp application.

A range of dedicated controls, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

### Probes and accessories for control panels

- **WMT21:** Electronic thermostat with LCD display (wall installation).
- **SWAI:** Water temperature probe for WMT21 control panels. Cable length L=2m.
- **PTI22:** Electronic thermostat on board the fan coil

### VMF system

- **VMF-E2Z:** User interface for mounting on with two selectors: one to control the temperature and one for the speed
- **VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18:** Thermostat for serial communication
- **VMF-SW:** water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the

valve.

- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

### Coil - Hot water

- **BV:** Single row hot water heat exchanger

### Valve kit

- **VCZ\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCZ or VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD:** Kit consisting of powered 2-way valve, copper Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic

**components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

**The VJP is controlled by on-off logic** with compatible control panels (accessories)

**The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec

**The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

### Installation accessoires

- **AMP:** kit for the wall mounting installation.
- **DSC4:** Condensate drainage device for use when natural run-off is not possible.
- **BC:** Auxiliary condensate drip tray
- **GA:** Grille to hide hydraulics and electrics on ceiling mounted units; also applicable for floor installation.
- **ZXZ:** Copy of esthetical and structural feet

Refer to dedicated product Leaflet for further details concerning control panel and VMF System

## Compatibility of accessories

		Single coil model											
FCZI		200	250	300	350	400	450	500	550	700	750	900	950
Probes and accessories for control panels													
T-TOUCH-I	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
PTI2Z	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
WMT21	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
SWAI	AS-U	In combination with WMT21											
VMF System													
VMF-E18	AS-U-D*	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U	•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)													
BV122	All	•											
BV132	All			•									
BV142	All					•		•					
BVZ800	All									•			
BV162	All											•	
Water valves **													
Valve Kit for 4 pipe systems with main coil													
VCZ1X4L-R	AS-U-(D+sist. VMF or DT)	•	•										
VCZ2X4L-R	AS-U-(D+sist. VMF or DT)			•	•	•	•	•	•	•	•		
VCZ3X4L-R	AS-U-(D+sist. VMF or DT)											•	•
3 way valve kit													
VCZ41/4124	All	(1)	•	•									
VCZ42/4224	All	(1)			•	•	•	•	•	•	•		
VCZ43/4324	All	(1)										•	•
2 way valve kit													
VCZD1/124	All	(1)	•	•									
VCZD2/224	All	(1)			•	•	•	•	•	•	•		
VCZD3/324	All	(1)										•	•
Combined adjustment and balancing valve independent of pressure**													
VJP060		•	•	•	•								
VJP090						•	•	•	•				
VJP150										•	•	•	•
VJP060M		(1)	•	•	•	•							
VJP090M		(1)				•	•	•	•				
VJP150M		(1)								•	•	•	•
Installation accessories													
AMP20	U	•	•	•	•	•	•	•	•				
AMPZ	U	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(2)	•	•	•	•	•	•	•	•	•	•	•
Panel to close rear of unit													
PCZ200	All	•	•										
PCZ300	All			•	•								
PCZ500	All					•	•	•	•				
PCZ800	All									•	•		
PCZ1000	All											•	•
Grille for ceiling mounted units													
GA200	U	•	•										
GA300	U			•	•								
GA500	U					•	•	•	•				
GA800	U									•	•	•	•
ZXZ	All	•	•	•	•	•	•	•	•	•	•	•	•

For further details concerning control panels and VMF system refer to the dedicated sheets.

\* Contact Aermec

\*\*The water valves can be combined with the unit if it is also provided a control panel that controls

\*\* VJP / VJP\_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M are 24V

(2) DSC4 is not available with AMPZ

## Compatibility of accessories

			Twin coil model										
FCZI			201	202	301	302	401	402	501	502	701	702	901
Probes and accessories for control panels													
T-TOUCH-I	AS-U		•	•	•	•	•	•	•	•	•	•	•
PTI2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•
WMT21	AS-U		•	•	•	•	•	•	•	•	•	•	•
SWAI	AS-U		In combination with WMT21										
VMF System													
VMF-E18	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E4	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-E5	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS-U		•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AS-U		•	•	•	•	•	•	•	•	•	•	•
Water valves													
3 way valve kit													
VCZ41/4124	All	(1)	•	•									
VCZ42/4224	All	(1)			•	•	•	•	•	•	•	•	
VCZ43/4324	All	(1)											•
2 way valve kit													
VCZD1/124	All	(1)	•	•									
VCZD2/224	All	(1)			•	•	•	•	•	•	•	•	
VCZD3/324	All	(1)											•
3 way valve kit for heating coil only													
VCF44/4424	All	(1)	•	•	•	•	•	•	•	•	•	•	
VCF45/4524	All	(1)											•
2 way valve kit for heating coil only													
VCFD4/424	All	(1)	•	•	•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure**													
VJP060	All		•	•	•	•	•	•	•	•	•	•	
VJP150	All												•
VJP060M	All	(1)	•	•	•	•	•	•	•	•	•	•	
VJP150M	All	(1)											•
Installation accessories													
AMP20	U		•	•	•	•	•	•	•	•			
AMPZ	U		•	•	•	•	•	•	•	•	•	•	•
DSC4	All	(2)	•	•	•	•	•	•	•	•	•	•	•
Panel to close rear of unit													
PCZ200	All		•	•									
PCZ300	All				•	•							
PCZ500	All						•	•	•	•			
PCZ800	All										•	•	
PCZ1000	All												•
Grille for ceiling mounted units													
GA200	U		•	•									
GA300	U				•	•							
GA500	U						•	•	•	•			
GA800	U										•	•	•
ZXZ	All		•	•	•	•	•	•	•	•	•	•	•

For further concerning control panels and VMF system refer to the dedicated sheets.

**\*\*The water valves can be combined with the unit if it is also provided a control panel that controls**

**VJP / VJP\_M** The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP60M-VJP090M-VJP150M are 24V

(2) DSC4 is not available with AMPZ

## Technical data - with single coil

FCZI		200			250			300			350			400			450			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57
Water flow rate	(1)	l/h	324	258	177	355	278	193	482	391	304	539	431	330	627	503	379	685	551	400
Pressure drop	(1)	kPa	18	12	6	23	15	7	18	12	7	20	14	8	24	16	9	16	11	6
Heating capacity (45°C)	(3)	kW	1,84	1,46	1,00	2,01	1,58	1,09	2,73	2,21	1,72	3,06	2,44	1,87	3,55	2,85	2,14	3,88	3,12	2,27
Water flow rate	(3)	l/h	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394
Pressure drop	(3)	kPa	17	12	6	23	15	8	17	12	8	20	14	8	23	16	9	16	11	6
Cooling Performance																				
Total cooling capacity	(4)	kW	1,60	1,28	0,89	1,94	1,55	1,06	2,65	2,17	1,68	3,02	2,46	1,89	3,60	2,92	2,21	4,03	3,21	2,41
Sensible cooling capacity	(4)	kW	1,33	1,05	0,71	1,52	1,20	0,79	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,90	2,30	1,69
Water flow rate	(4)	l/h	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414
Pressure drop	(4)	kPa	18	12	6	25	17	8	18	12	8	25	17	11	24	16	10	22	15	9
Fans																				
Centrifugal Fans	n°	1						2						2						
Air flow rate	m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	
Sound level																				
Sound power level	(5)	dB(A)	50	43	31	50	43	31	48	41	34	48	41	34	51	44	37	51	44	37
Sound pressure level		dB(A)	42	35	23	42	35	23	40	33	26	40	33	26	43	36	29	43	36	29
Hydraulic connections																				
Main coil																				
Standard	Ø	1/2"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			1/2"			/			3/4"			/			3/4"			
Electrical data																				
Absorbed power	W	12	8	5	12	8	5	13	7	4	13	7	4	17	9	6	17	9	6	
Power supply		230V~50Hz																		

FCZI		500			550			700			750			900			950			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	8,50	7,31	5,27	9,75	8,34	5,82	11,00	9,80	8,10	12,50	11,30	9,10	15,14	13,35	10,77	17,10	14,42	11,20
Water flow rate	(1)	l/h	745	641	462	855	731	510	964	859	710	1096	991	798	1328	1171	945	1500	1264	982
Pressure drop	(1)	kPa	28	21	12	26	20	10	29	23	17	18	15	10	22	17	12	33	24	15
Heating capacity (45°C)	(3)	kW	4,22	3,63	2,62	4,85	4,14	2,89	5,47	4,87	4,03	6,21	5,62	4,52	7,53	6,64	5,35	8,50	7,17	5,57
Water flow rate	(3)	l/h	734	631	455	842	720	502	950	846	699	1079	975	786	1307	1152	930	1476	1245	967
Pressure drop	(3)	kPa	28	21	12	25	19	10	29	23	16	17	14	10	21	17	12	33	24	15
Cooling Performance																				
Total cooling capacity	(4)	kW	4,25	3,69	2,68	4,79	4,13	2,91	5,50	4,89	3,92	6,14	5,34	4,27	6,91	5,00	4,29	8,60	7,32	5,77
Sensible cooling capacity	(4)	kW	3,18	2,73	1,94	3,49	2,98	2,07	4,30	3,76	2,99	4,72	4,05	3,20	5,68	3,78	2,97	5,78	4,87	3,80
Water flow rate	(4)	l/h	731	634	460	824	711	501	946	841	675	1056	918	734	1189	860	738	1479	1259	992
Pressure drop	(4)	kPa	29	22	13	28	21	11	30	24	16	18	14	10	23	12	9	30	22	15
Fans																				
Centrifugal Fans	n°	2						3						3						
Air flow rate	m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	1140	930	700	
Sound level																				
Sound power level	(5)	dB(A)	56	51	42	56	51	42	62	57	50	62	57	50	62	57	51	61	57	51
Sound pressure level		dB(A)	48	43	34	48	43	34	54	49	42	54	49	42	54	49	43	53	49	43
Hydraulic connections																				
Main coil																				
Standard	Ø	3/4"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			3/4"			/			3/4"			/			3/4"			
Electrical data																				
Absorbed power	W	37	20	8	37	20	8	80	40	30	80	40	30	80	40	30	80	40	30	
Power supply	230V~50Hz																			

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level: based on measurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Technical data - with main + supplementary coil

FCZI		201			202			301			302			401			402			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																				
4 pipe systems																				
Heating capacity (65°)	(1)	kW	1,61	1,36	1,02	2,73	2,23	1,57	2,56	2,19	1,81	4,33	3,58	2,84	3,13	2,65	2,13	5,29	4,34	3,35
Water flow rate	(1)	l/h	138	117	88	234	191	135	221	188	155	372	308	244	269	228	183	455	373	288
Pressure drop	(1)	kPa	10	7	5	7	5	3	29	22	15	22	16	11	8	7	4	7	4	3
Cooling Performance																				
Total cooling capacity	(2)	kW	1,60	1,28	0,89	1,60	1,28	0,89	2,65	2,17	1,68	2,65	2,17	1,68	3,60	2,92	2,21	3,60	2,92	2,21
Sensible cooling capacity	(2)	kW	1,33	1,05	0,71	1,33	1,05	0,71	2,04	1,65	1,26	2,04	1,65	1,26	2,67	2,14	1,59	2,67	2,14	1,59
Water flow rate	(2)	l/h	275	221	153	275	221	153	456	374	288	456	374	288	619	503	379	619	503	379
Pressure drop	(2)	kPa	18	12	6	18	12	6	18	12	8	18	12	8	24	16	10	24	16	10
Fans																				
Centrifugal Fans	n°	1						2						2						
Air flow rate	m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	
Sound level																				
Sound power level	(3)	dB(A)	50	43	31	50	43	31	48	41	34	48	41	34	51	44	39	51	44	39
Sound pressure level		dB(A)	42	35	23	42	35	23	40	33	26	40	33	26	43	36	31	43	36	31
Hydraulic connections																				
Main coil	Ø	1/2"						3/4"						3/4"						
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																				
Absorbed power	W	12	8	5	12	8	5	13	7	4	13	7	4	17	9	6	17	9	6	
Power supply		230V~50Hz																		

FCZI		501			502			701			702			901			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																	
4 pipe systems																	
Heating capacity (65°C)	(1)	kW	3,74	3,34	2,59	6,44	5,66	4,16	4,95	4,29	3,66	8,80	7,48	6,24	5,73	5,63	4,74
Water flow rate	(1)	l/h	321	287	223	554	486	358	426	369	315	757	643	536	493	484	407
Pressure drop	(1)	kPa	10	8	5	7	7	3	20	16	15	16	12	11	12	11	9
Cooling Performance																	
Total cooling capacity	(2)	kW	4,25	3,69	2,68	4,25	3,69	2,68	5,50	4,89	3,92	5,50	4,89	3,92	6,91	5,00	4,29
Sensible cooling capacity	(2)	kW	3,18	2,73	1,94	3,18	2,73	1,94	4,30	3,76	2,99	4,30	3,76	2,99	5,68	3,78	2,97
Water flow rate	(2)	l/h	731	634	460	731	634	460	946	841	675	946	841	675	1189	860	738
Pressure drop	(2)	kPa	29	22	13	29	22	13	30	24	16	30	24	16	22	12	9
Fans																	
Centrifugal Fans	n°	2					3					3					
Air flow rate	m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	
Sound level																	
Sound power level	(3)	dB(A)	56	51	42	56	51	42	61	57	51	61	57	51	61	57	51
Sound pressure level		dB(A)	48	43	34	48	43	34	53	49	43	53	49	43	53	49	43
Hydraulic connections																	
Main coil	Ø	3/4"					3/4"					3/4"					
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																	
Absorbed power	W	37	20	8	37	20	8	80	40	30	80	40	30	80	40	30	
Power supply		230V~50Hz															

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C (EUROVENT)

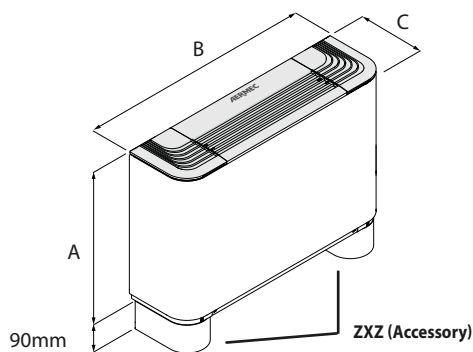
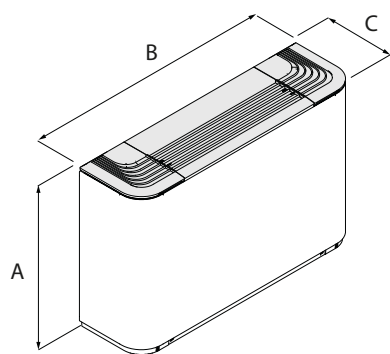
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on measurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m



## Dimensions and Weights



FCZI		200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	/	950
Dimensions for all versions																									
A	mm			486				486				486				486				486				591	
A(with feet)	mm			576				576				576				576				576				681	
B	mm			750				980				1200				1200				1320				1320	
C	mm			220				220				220				220				220				220	
Weight	kg	15	15	16	16	17	17	18	18	22	23	24	24	22	23	24	24	29	30	31	31			34	

# Omnia HL

Fan coils  
Universal installations for residential applications



Aermec participate in the EUROVENT program: FCH the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



## Plasmacluster

(only for Omnia HL PC and PCM)



**Variable Multi Flow**

**VMF**

**GIUGIARO**  
DESIGN

### White colour:

- ☐ cover: RAL 9002
- ☐ top and supports: RAL 7044

### Grey colour:

- ☐ cover: FIAT 656
- ☐ top and supports: RAL 7031

## Features

- HL (High Line) fan coils for both horizontal and vertical installation
- 4 sizes and 12 versions:  
**HL**: white body with switch  
**HL M**: metallic grey body with switch  
**HL N**: white body with electronic thermostat VMF  
**HL NM**: metallic grey body with electronic thermostat VMF  
**HL L**: white cabinet with Self-Closing Louver and electronic thermostat  
**HL LM**: grey cabinet with Self-Closing Louver and electronic thermostat  
**HL PC**: white body with electronic thermostat and Plasmacluster filter (factory-mounted only)  
**HL PCM**: metallic grey body with electronic thermostat and Plasmacluster filter (factory-mounted only)  
**HL S**: white body with no on-board controls VMF System compatible  
**HL SM**: metallic grey body with no on-board controls. VMF System compatible
- 3-speed centrifugal fan
- Very quiet operation
- Aesthetically styled with soft flowing lines
- New adjustable air delivery louver
- Automatic power-off function with closure of the air delivery louver
- Slim dimensions
- Electronic temperature control, automatic fan speed change, automatic season changeover and automatic on - off (with electronic thermostat)
- Water connections reversibility during installation
- Low pressure drop across heat exchanger
- Motors with permanently connected condensers
- Easy installation and maintenance
- Full compliance with safety regulations

## Accessories

- **AMP**: Kit for wall/ceiling mounting. Standard on S and SM versions.
- **BC**: Auxiliary condensate drip tray.  
 BC 10 for vertical installation  
 BC 20 for horizontal installation
- **DSC5**: Condensate drainage device for use when natural run-off is not possible. DSC5 is not compatible BC10 - BC20 accessories.
- **PCH - PCHM**: Back closing panel, white (PCHM) or gray (PCHM).
- **SIT 3-5**: Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).  
**SIT3**: commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.  
**SIT5**: commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW**: Water probe which enables automatic season change-over thanks to the specific electronic thermostats.
- **SWA**: External probe accessory SWA (length L=6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **VCH**: Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD**: Kit comprising motorized 2-way valve, unions and copper pipes.
- **ZH1**: White feet for floor-standing installations
- **ZH1B**: White feet for floor-standing installations with skirting board.
- **ZH1M**: Gray feet for floor-standing installations
- **ZH1MB**: Gray feet for floor-standing installations with skirting board.
- **Control panels and VMF system**: the characteristics of the control panels are described on the appropriate card.

Omnia HL	11	16	26	36	Versions
FMT10-FMT21	•	•	•	•	S-SM
PX2- PX2C6	•	•	•	•	S-SM
PXAE	•	•	•	•	S-SM
TPF	•	•	•	•	S-SM
WMT05- WMT10	•	•	•	•	S-SM
VMF-E4- VMF-E4D	•	•	•	•	S-SM
VMF-E2H	•	•	•	•	S-SM
VMF-E0- VMF-E	•	•	•	•	S-SM
AMP10	•	•	•	•	Alls but S, SM
BC10*	•	•	•	•	Alls
BC20*	•	•	•	•	Alls
DSC5*	•	•	•	•	Alls
PCH/PCHM	•	•	•	•	Alls
SIT3	•	•	•	•	S-SM
SIT5	•	•	•	•	S-SM
SW3	•	•	•	•	S-SM
SWA	•	•	•	•	S-SM
VCH	•	•	•	•	Alls but L, LM
VCHD	•	•	•	•	Alls but L, LM
ZH1/ZH1B	•	•	•	•	Alls
ZH1M/ZH1BM	•	•	•	•	Alls

PX2C6, PX2 panel in multiple 6-piece pack, **for only wall installation**

\* = The DSC5 accessory is not compatible BC10 - BC20 - VMF system accessories

## Technical data

Omnia HL		11			16			26			36			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance														
2 pipe configuration														
Heating capacity (70°C)	(1)	kW	2,01	1,46	1,06	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1)	l/h	176	128	93	255	186	135	405	336	254	521	427	310
Pressure drops	(1)	kPa	2	1	1	4	2	1	11	8	5	7	5	3
Heating capacity (45°C)	(2)	kW	1,00	0,73	0,53	1,45	1,05	0,77	2,30	1,91	1,44	2,96	2,42	1,76
Water flow rate	(2)	l/h	174	126	92	251	183	133	399	331	249	513	420	305
Pressure drops	(2)	kPa	2	1	0,5	4	2	1	11	8	5	7	5	3
Cooling Performance														
Total cooling capacity	(3)	kW	0,84	0,68	0,54	1,20	0,89	0,71	2,03	1,68	1,28	2,83	2,29	1,66
Sensible cooling capacity	(3)	kW	0,70	0,53	0,39	0,99	0,71	0,54	1,64	1,33	0,99	2,04	1,62	1,16
Water flow rate	(3)	l/h	145	117	94	206	153	122	349	289	220	487	394	286
Pressure drops	(3)	kPa	2	1	1	5	3	2	11	8	5	19	13	7
Water content	l	0,4			0,5			0,8			1,1			
Fans														
Fan - Centrifugal	n°	1						2						
Air flow rate	m³/h	180	120	80	240	160	110	350	270	190	460	350	240	
Sound data														
Sound power level	(4)	dB(A)	46	37	31	48	43	34	48	43	35	50	43	34
Sound pressure level		dB(A)	38	29	23	40	35	26	40	35	27	40	33	26
Diameter connections														
Standard coil	Ø													
Electrical Features														
Absorbed power	W	18	12	8	32	25	23	35	27	24	42	35	30	
Max. input current	A	0,09			0,15			0,18			0,22			
Electrical wiring		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply		230V~50Hz												

H max. speed; M med. speed; L min. speed

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

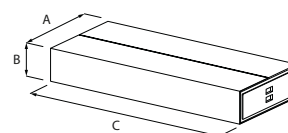
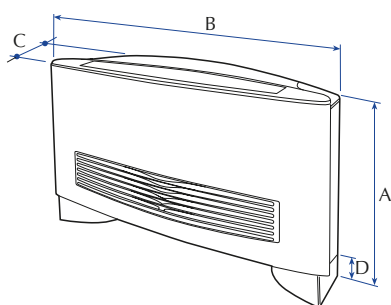
(2) Room air 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

**Note: For more information, please refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**

## Dimensions (mm)



PACKAGING design example

Mod Omnia		HL 11	HL 16	HL 26	HL 36
Height	A	600	605	615	623
Width	B	640	750	980	1200
Depth	C	187	189	191	198
Height feet	D	93	93	93	93
Weight <sup>1</sup>	kg	13,6	14,6	17,6	20,6
<b>Packaging Dimensions</b>					
A/B/C	mm	590/275/710	590/275/820	590/275/1050	590/275/1270

(1) Standard configuration without accessories

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# Omnia UL

Fan coils  
Universal installations for residential applications



Aermec participate in the EUROVENT program: FCH the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



Variable Multi Flow<sup>®</sup>  
VMF



**Plasmacluster**  
(only for Omnia UL PC)

**White colour:**

- ☐ cover: RAL 9002
- ☐ top and supports: RAL 7044

## Features

- UL (Universal Line) fan coils for both horizontal and vertical installation
- **Versions:**
  - UL-S:** version without switch, with cabinet. Compatible with VMF System
  - UL:** version with switch and cabinet
  - UL-C:** version with electronic thermostat and with cabinet
  - UL-PC:** version with electronic thermostat and Plasmacluster filter (factory-mounted only) and cabinet
- **Versions compatible with VMF System.**
- **Fan cleaning:** Omnia fan coils allow fan blades to be easily cleaned. It is now possible to remove the fan volute (it contains the fan blades) and clean it periodically.
- **Condensate drip tray cleaning:** Thanks to a new drip tray fitting, it is now easier to clean it with Omnia fan coils. This important solution avoids, in the long run, bacteria, germs and mould to grow up, in the drip tray because of the air humidity.
- **Precharged electrostatic filter:** Omnia fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus guaranteeing pure breathable air to the whole family.
- **PLASMACLUSTER ionising filter:** Plasmacluster is capable of reducing the level of pollutants, by decomposing the molecules that form them. Using a series of electric shocks, "Plasmacluster" causes the water molecules present in the air to separate into positive and negative ions. These ions neutralise the gas pollutant molecules, forming products that are normally present in clean air. The result is in the air: you can finally breathe clean, odour-free ionised air.
- **Silent operation:** Thanks to the use of special centrifugal fans, Omnia fan coils operation is extremely silent and offers the maximum acoustic comfort.
- 3-speed centrifugal fan
- Very quiet operation
- Aesthetically styled with soft flowing lines
- Adjustable air delivery louver
- Automatic power-off function with closure of the air delivery louver
- Slim dimensions
- Electronic temperature control, automatic fan speed change, automatic season changeover and automatic on - off (with electronic thermostat)
- Water connections reversibility during installation
- Low pressure drop across heat exchanger
- Motors with permanently connected condensers
- Easy installation and maintenance
- Air filter easy to remove and to clean
- Full compliance with safety regulations

## Accessories

- **AMP:** Kit for wall/ceiling mounting. Standard on P and S versions.
- **BC:** Auxiliary condensate drip tray.  
BC 10 for vertical installation  
BC 20 for horizontal installation
- **DSC5:** Condensate drainage device for use when natural run-off is not possible. DSC5 is not compatible BC10 - BC20 accessories.
- **GU:** Aspiration grille, covers the front space between the stands, does not interfere with the air filter. **Use with ZU stands compulsory.**
- **PCU:** Rear cover panel.
- **SIT 3-5:** Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).
- **SIT3:** commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
- **SIT5:** commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW:** Water probe wich enables automatic season change-over thanks to the specific electronic thermostats.
- **SWA:** External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **VCH:** Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD:** Kit comprising motorized 2-way valve, unions and copper pipes.
- **ZU:** Feet for floor-standing solutions.
- **Control panels and VMF System:** The control panels are described in a separate document.

Omnia UL S C PC	vers.	11	16	26	36
FMT21	S	.	.	.	.
SWA	(1) S	.	.	.	.
PX2 o PX2C6	(2) S	.	.	.	.
PXAE	S	.	.	.	.
PXLM	S	.	.	.	.
TPF	S	.	.	.	.
WMT05	S	.	.	.	.
WMT10	S	.	.	.	.
VMF-E4 o E4D	S	.	.	.	.
VMF-E0 o E1	S	.	.	.	.
AMP10	C-PC	.	.	.	.
BC10	Alls	.	.	.	.
BC20	Alls	.	.	.	.
DSC5	(3) Alls	.	.	.	.
SIT3	S	.	.	.	.
SIT5	S	.	.	.	.
SW3	C-PC	.	.	.	.
VCH	Alls	.	.	.	.
VCHD	Alls	.	.	.	.
ZU	S-C-PC	.	.	.	.

(1) SWA probe for FMT21

(2) PX2C6, PX2 panel in multiple 6-piece pack, for only wall installation

(3) The DSC5 accessory is not compatible BC10 - BC20 accessories.

## Technical data

Omnia UL		11			16			26			36		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance													
2 pipe configuration													
Heating capacity (70°C)	(1) kW	2,01	1,46	1,06	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1) l/h	176	128	93	255	186	135	405	336	254	521	427	310
Pressure drops	(1) kPa	2	1	1	4	2	1	11	8	5	7	5	3
Heating capacity (45°C)	(2) kW	1,00	0,73	0,53	1,45	1,05	0,77	2,30	1,91	1,44	2,96	2,42	1,76
Water flow rate	(2) l/h	174	126	92	251	183	133	399	331	249	513	420	305
Pressure drops	(2) kPa	2	1	0,5	4	2	1	11	8	5	7	5	3
Cooling Performance													
Total cooling capacity	(3) kW	0,84	0,68	0,54	1,20	0,89	0,71	2,03	1,68	1,28	2,83	2,29	1,66
Sensible cooling capacity	(3) kW	0,70	0,53	0,39	0,99	0,71	0,54	1,64	1,33	0,99	2,04	1,62	1,16
Water flow rate	(3) l/h	145	117	94	206	153	122	349	289	220	487	394	286
Pressure drops	(3) kPa	2	1	1	5	3	2	11	8	5	19	13	7
Water content	l	0,4			0,5			0,8			1,1		
Fans													
Fan - Centrifugal	n°	1						2					
Air flow rate	m³/h	180	120	80	240	160	110	350	270	190	460	350	240
Sound data													
Sound power level	(4) dB(A)	46	37	31	48	43	34	48	43	35	50	43	34
Sound pressure level	dB(A)	38	29	23	40	35	26	40	35	27	40	33	26
Diameter connections													
Standard coil	Ø												
Electrical Features													
Absorbed power	W	18	12	8	32	25	23	35	27	24	42	35	30
Max. input current	A	0,09			0,15			0,18			0,22		
Electrical wiring		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply		230V~50Hz											

H max. speed; M med. speed; L min. speed

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

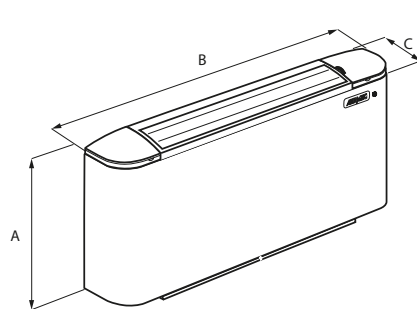
(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

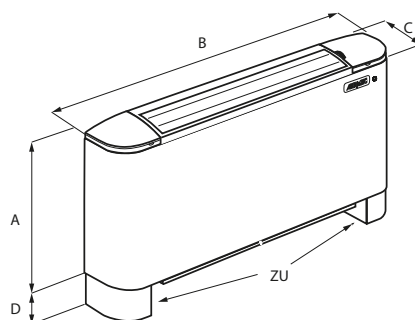
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

**Note: For more information, please refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**

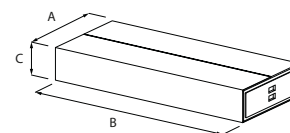
## Dimensions (mm)



Wall installation



Floor installation



PACKAGING design example

Mod Omnia		UL 11	UL 16	UL 26	UL 36
Height	A	513	513	513	513
Width	B	640	750	980	1200
Depth	C	173	173	173	173
Height feet	D	93	93	93	93
Weight <sup>1</sup>	kg	12,5	13,5	16,5	19,5
<b>Packaging Dimensions</b>					
A/B/C	mm	590/275/710	590/275/820	590/275/1050	590/275/1270

(1) Standard configuration without accessories

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# Omnia ULI

Fan coils with Inverter Brushless motor (EC)  
Universal installation for residential use



Aermec  
is participating in the EUROVENT Program: FCH  
The related products can be found at the  
website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



**Plasmacluster**  
(only for Omnia UL PC)

White

- ☐ RAL 9002 Case
- ☐ RAL 7044 Head and Feet

- **ELECTRIC SAVING EQUAL TO 50% COMPARED TO A FAN COIL WITH 3-SPEED MOTOR**
- **FULLY SILENT FUNCTIONING**

## Features

Fan coils with inverter technology for heating, cooling, and dehumidifying. Equipped with a state of the art ventilation unit with continuous modulation of the air flow rate, which allows for precise adaptation of the actual indoor ambient requirements without temperature oscillations, for increased comfort, also in terms of noise, and electrical savings. It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

**Version without on-board thermostat, vertical and horizontal installation:**

**ULI-S:** version with cabinet without control but compatible with the VMF system or with other control panels that can be supplied as accessories.

**Version with on-board thermostat, only vertical installation:**

**ULI-C:** version with cabinet and electronic thermostat

**ULI-PC:** version with cabinet, electronic thermostat and Plasmacluster filter

- Silent functioning thanks to the special centrifugal fans with 0-100% continual speed variation Brushless motor.
- Adjustable air distribution grid
- Automatic fan coil switch-off when the air distribution grid is closed

- Electronic temperature adjustment, automatic speed change on the fan, seasonal change and automatic switch-on and off (version with thermostat)
- Reversibility of hydraulic connections during installation
- Low pressure drop in heat exchange coils
- Easy installation and maintenance.
- Air filter with easy extraction and cleaning.

## Accessories

### Accessories for the S version without on-board thermostat

- **WMT21:** Electronic thermostat for wall installation
- **SWAI:** Water temperature probe for WMT21 panels (2 m cable length)

### VMF system

- **VMF-E18:** Thermostat for serial communication
- **VMF-E2D:** User interface to install on the machine with two selectors: one to control the temperature and one for the speed
- **VMF-E4:** The wall user interface allows you to control the functions via a capacitive touch keyboard.
- **VMF-E5:** The wall recessed panel allows you to control the functions of a complete hydronic system via a capacitive touch keyboard.

**For further information on the thermostats and the VMF system, refer the the specific data sheet.**

- **BC20:** Auxiliary condensate drip tray for horizontal installation

### Accessories for the C-PC versions with on-board thermostat.

- **PTI2:** Standard installed on-board electronic thermostat
- **AMP10:** Kit for wall installation without feet

### Accessories available for all versions

- **DSC5:** Condensate draining device when level differences must be exceeded. DSC5 is not compatible with BC10 - BC20.
- **BC10:** Auxiliary condensate drip tray for vertical installation
- **GU:** Intake grid covers the front space between the feet and does not interfere with the air filter.
- **PCU:** Rear closing panel
- **VCH:** Kit composed of 3-way motorised valve and copper pipes and connections.
- **VCHD:** Kit composed of 2-way motorised valve and copper pipes and connections.
- **ZU:** Feet for floor assembly.

Omnia UL_I	vers.	16	26	36
<b>Accessories for S version without thermostat</b>				
<b>Thermostat</b>				
<b>WMT21</b>	S	•	•	•
<b>SWAI</b>	S	•	•	•
<b>VMF system</b>				
<b>VMF-E2D</b>	S	•	•	•
<b>VMF-E4</b>	S	•	•	•
<b>VMF-E5</b> (2)	S	•	•	•
<b>BC10 or BC20</b>	S	•	•	•

(1) Standard AMP10 for S versions

(2) DSC5 is not compatible with trays BC10 - BC20

(3) It must be paired with ZU feet.

Omnia UL_I	vers.	16	26	36
<b>Accessories for the C-PC versions with thermostat</b>				
<b>PTI2</b>	C-PC	as per standard	as per standard	as per standard
<b>AMP10</b> (1)	C-PC	•	•	•
<b>BC10</b>	C-PC	•	•	•
<b>Accessories available for all versions</b>				
<b>DSC5</b> (2)	C-PC-S	•	•	•
<b>GU</b> (3)	C-PC-S	•	•	•
<b>PCU</b>	C-PC-S	•	•	•
<b>VCH</b>	C-PC-S	•	•	•
<b>VCHD</b>	C-PC-S	•	•	•
<b>ZU</b>	C-PC-S	•	•	•

## Technical data

Omnia UL_I		16			26			36		
Fan speed		H	M	L	H	M	L	H	M	L
<b>Heating Performance</b>										
<b>2 pipe configuration</b>										
Heating capacity (70°C)	(1) kW	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1) l/h	255	186	135	405	336	254	521	427	310
Pressure drops	(1) kPa	4	2	1	5	8	11	7	13	18
Heating capacity (45°C)	(2) kW	1,45	1,05	0,77	2,30	1,91	1,44	2,96	2,42	1,76
Water flow rate	(2) l/h	251	183	133	399	331	249	513	420	305
Pressure drops	(2) kPa	4	2	1	5	8	11	7	12	18
<b>Cooling Performance</b>										
Total cooling capacity	(3) kW	1,20	0,89	0,71	2,03	1,68	1,28	2,83	2,29	1,66
Sensible cooling capacity	(3) kW	0,99	0,71	0,54	1,64	1,33	0,99	2,04	1,62	1,16
Water flow rate	(3) l/h	206	153	122	349	289	220	487	394	286
Pressure drops	(3) kPa	5	3	2	11	8	5	19	13	7
Water content	l		0,5			0,8			1,1	
<b>Fans</b>										
Fan - Centrifugal	n°		1				2			
Air flow rate	m³/h	240	160	110	350	270	190	460	350	240
<b>Sound data</b>										
Sound power level	(4) dB(A)	48	43	34	48	43	35	50	43	34
Sound pressure level	dB(A)	40	35	26	40	35	27	40	33	26
<b>Diameter connections</b>										
Standard coil	Ø		1/2"			1/2"			1/2"	
<b>Electrical Features</b>										
Absorbed power	W	12	8	6	15	10	7	18	12	8
Max. input current	A		0,16			0,16			0,25	
Signal 0-10V	%	83	56	38	90	70	49	90	70	48
Power supply		230V~50Hz								

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

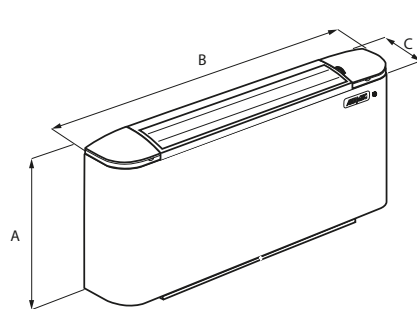
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

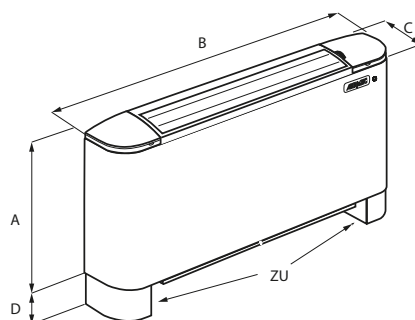
Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

**Note: For more information, please refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**

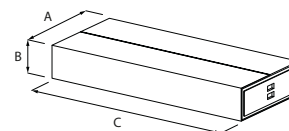
## Dimensional (mm)



Wall-mount installation



Floor installation



PACKAGING design example

Omnia UL_I			16	26	36
Height	A	mm	513	513	513
Width	B	mm	750	980	1200
Depth	C	mm	173	173	173
Height feet	D	mm	93	93	93
Weight¹		kg	13,5	16,5	19,5
<b>Packaging Dimensions</b>					
A/B/C		mm	590/275/820	590/275/1050	590/275/1270

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# Omnia Radiant

Fan coils with radiant panel for residential use  
Ceiling or floor mounted



Aermec participate in the EUROVENT program: FCU the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable Multi Flow

VMF



- **LOW TEMPERATURE RADIATION\***
- **VENTILATED HEATING**
- **COOLING – DEHUMIDIFICATION**
- **ENERGY SAVING**
- **LOW OPERATING COST**

\* Radiant technology under licence

## Features

### Omnia Radiant and Omnia Radiant Plus Aermec innovative solutions

In this particular worldwide market evolution, we are pleased to present to you OMNIA Radiant, which represents the innovation of the OMNIA AERMEC series, fan coils especially designed for residential comfort.

OMNIA Radiant inherits all the advantages of the OMNIA UL series, and is characterized by the introduction of the frontal plate for radiant heating.

OMNIA Radiant Plus is provided with the DC Brushless electric engine, equipped with the latest Inverter technology, granting the highest energy efficiency and able to regulate the air flow through the continuous fan speed modulation. This allows to achieve up to 60% in energy saving when compared to the traditional On-Off fan system, in both air conditioning and heating.

OMNIA Radiant and Radiant Plus offer the following advantages when compared to the traditional systems:

- the radiant plate combination – the finned coil allows the best winter comfort with the lower energy consumption because it provides heating with lower water temperature: only 45°C against the about 65°C needed for the traditional radiator. This not only increases the comfort for the user, but also significantly increases the overall efficiency in case of heat pumps usage;
- the fan system allows to quickly reach the desired temperature, meeting the requirement of a fast start-up;
- the unit can be combined other than the boiler, also to energy saving heat pumps: air to water, water to water and geothermic type;
- the electrostatic charge filter standard supplied, provides pure and clean air;
- during summer Omnia Radiant and Radiant Plus provide air conditioning and dehumidification in a fast and efficient way in every room.

### The four different working modes of Omnia Radiant annual functioning

**Radiant:** Heating through radiation, comfortable and noiseless, is granted by the radiant plate placed on the front of the fan coil cover; if necessary, the triple-fins delivery head can be closed to increase the heating of the plate, thus maximizing the radiant effect.

#### Radiant + Natural Convection

With the triple-fins open, heating through natural convection, obtained thanks to the bigger coil exchange surface, is added to the radiant heating. As for the radiant-only mode (see above), the fan groups are in off mode. This results in acoustic comfort and energy saving.

#### Radiant + Forced Convection

The electronic regulation, precise and reliable, continuously compares the effective indoor temperature with the desired temperature: whenever the difference between the two should prove to be too high (e.g. during the heating system start-up) the software will lead the fan system start-up. Start-up is fast and efficient and grants significant energy savings especially in rooms that are occasionally used.

### Omnia Radiant during summer provides air conditioning and dehumidification:

#### Forced Convection

During summer, Omnia Radiant and Radiant Plus provide air conditioning and dehumidification for each room of the house in a fast and efficient way. Efficiency and quietness benefit from the quality that has always characterized the Omnia series.



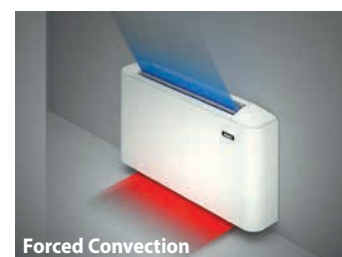
Radiant



Radiant + Natural Convection



Radiant + Forced Convection

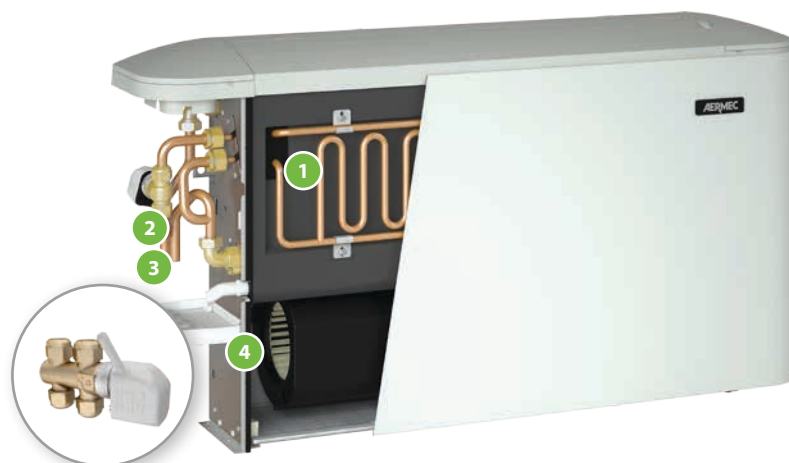


Forced Convection



## Features of the Omnia Radiant series

- 1 Radiant plate
- 2 Switching valve
- 3 Water probe
- 4 Condensate storage container, hydraulic hoses



VCHRAD accessory

- **OMNIA radiant (UL\_R) standard features:**
    - Radiant panel
    - Centrifugal fans
    - Three-speed motor
    - Condensate storage container, hydraulic hoses
    - Switching valve
    - Water probe
    - Electro-statically preloaded filter
    - VMF-thermostat for asynchronous motor
    - Compatible with VMF system
  - **OMNIA radiant plus (UL\_RI) standard features:**
    - Radiant panel
    - Centrifugal fans
    - Electric DC Brushless motor with Inverter
    - Condensate storage container, hydraulic hoses
    - Water probe
    - Switching valve
    - Electro-statically preloaded filter
    - VMF thermostat for DC Brushless motor
    - Compatible with VMF system
- Cleaning the fan:** The fan blades on the

Omnia Radiant are easy to clean. As a matter of fact, the new versions now offer the possibility of opening the worm screw of the fan (the casing that encloses the blades) to perform routine cleaning.

- **Electro-statically preloaded filter:** The Omnia Radiant fan coils feature standard air filters that are electro-statically preloaded. These filters, thanks to their particular construction, absorb and trap floating dust: the ideal system to provide clean air for all the family.
- **Silent operation:** Thanks to special centrifugal fans, Omnia Radiant fan coils are incredibly silent, making them the best buy when it comes to acoustic comfort, given the total lack of peak noise. **"The heating by radiation at top speed ensures total silence regime"**

**Note:**  
The coil had hydraulic hoses on the left and is not reversible.

## Accessories

- **PCU:** Rear closing panel.
- **ZU:** Wedges for floor mount.
- **GU:** Exhaust grille: covers the front space of the wedges and does not interfere with the air filter.
- **VCHRAD:** Kit comprising motorized 3-way valve, unions and copper pipes.  
**Must be combined with ZU wedges.**
- **VMF System:**  
Its specs are described in its technical sheet.

	Omnia radiant		Omnia Radiant plus	
	UL26R	UL36R	UL26RI	UL36RI
PCU	25	35	25	35
GU	25	35	25	35
VCHRAD	•	•	•	•
ZU	•	•	•	•
<b>VMF system</b>				
VMF-E4 (compulsory accessory)	•	•	•	•
VMF-E4D (compulsory accessory)	•	•	•	•
VMF-E5B	(1)	(1)	•	•
VMF-E5N	(1)	(1)	•	•

(1) Contact us

## Technical Data

Omnia UL_R		26			36		
Fan speed		H	M	L	H	M	L
Heating Performance							
2 pipe configuration							
Heating capacity (70°C)	(1) kW	4,62	3,83	2,89	5,94	4,87	3,53
Heating capacity (50°C)	(2) kW		2,75			3,54	
Water flow rate	l/h		397			511	
Pressure drop	kPa		17			21	
Static heating power (70°C)	(3) kW		0,65			0,75	
Static heating power (50°C)	(4) kW		0,39			0,45	
Static heating power (35°C)	(5) kW		0,20			0,23	
Cooling Performance							
Total cooling capacity	(6) kW	2,03	1,78	1,42	2,83	2,31	1,73
Sensible cooling capacity	(6) kW	1,64	1,37	1,05	2,04	1,79	1,28
Water flow rate	(6) l/h		349			487	
Pressure drops	(6) kPa		18			22	
Water content	l		0,8			1,1	
Fans							
Fan	type/n°	centrifugal/2					
Air flow rate	m³/h	350	270	190	460	350	240
Sound data							
Sound power level	(7) dB(A)	48	43	35	50	43	34
Sound pressure level	dB(A)	40	35	27	40	33	26
Diameter connections							
Standard coil	Ø(mm)		14			14	
Electrical Features							
Absorbed power	W		35			42	
Max. input current	A		0,18			0,22	
Electrical connections		V3	V2	V1	V3	V2	V1
Power supply	V/ph/Hz	230V~50Hz					
Energy Efficiency classification (EUROVENT)							
FCEER			D			D	
FCCOP	(8)		D			D	

Omnia UL_RI		26			36		
Fan speed		H	M	L	H	M	L
Heating Performance							
2 pipe configuration							
Heating capacity (70°C)	(1) kW	4,62	3,83	2,89	5,94	4,87	3,53
Heating capacity (50°C)	(2) kW		2,75			3,54	
Water flow rate	(2) l/h		397			511	
Pressure drop	(2) kPa		17			21	
Static heating power (70°C)	(3) kW		0,65			0,75	
Static heating power (50°C)	(4) kW		0,39			0,45	
Static heating power (35°C)	(5) kW		0,20			0,23	
Cooling Performance							
Total cooling capacity	(6) kW	2,03	1,78	1,42	2,83	2,31	1,73
Sensible cooling capacity	(6) kW	1,64	1,37	1,05	2,04	1,79	1,28
Water flow rate	(6) l/h		349			487	
Pressure drops	(6) kPa		18			22	
Water content	l		0,8			1,1	
Fans							
Fan	type/n°	centrifugal/2					
Air flow rate	m³/h	350	270	190	460	350	240
Sound data							
Sound power level	(7) dB(A)	48	43	35	50	43	34
Sound pressure level	dB(A)	40	35	27	40	33	26
Diameter connections							
Standard coil	Ø(mm)		14			14	
Electrical Features							
Absorbed power	W		12			16	
Max. input current	A		0,18			0,22	
Signal 0-10V		9V	7V	5V	9V	7V	5V
Alimentazione	V/ph/Hz	230V~50Hz					
Energy Efficiency classification (EUROVENT)							
FCEER			D			D	
FCCOP	(8)		D			D	

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode (EUROVENT)

(3) Radiant power + natural convection; Hot water (in) 70°C (water flow same as in heating cycle)

(4) Room temperature 20°C b.s.; Hot water (in/\*) 50°C/\*°C (water flow same as in heating cycle)

(5) Radiant power + natural convection; Hot water (in/\*) 35°C/\*°C (water flow same as in heating cycle)

(6) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(7) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

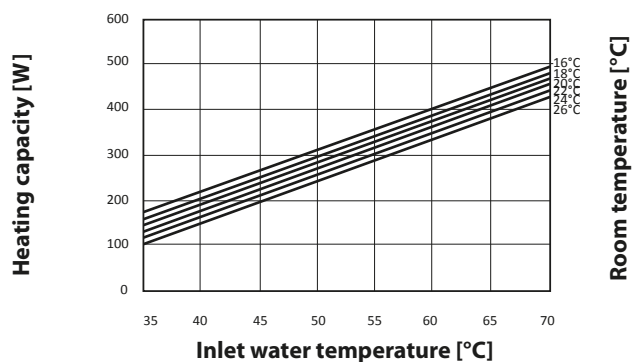
Level of sound pressure (A-weighted) measured in the room with volume V = 85m³ ; reverberation time t = 0.5s; direction factor Q = 2; distance r = 2.5m

(8) FCCOP Related to: Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode

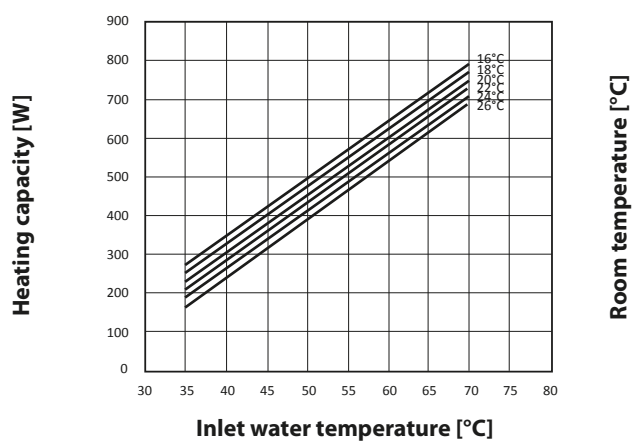
**Note: For more information, please refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**

## Heating capacity with fan off

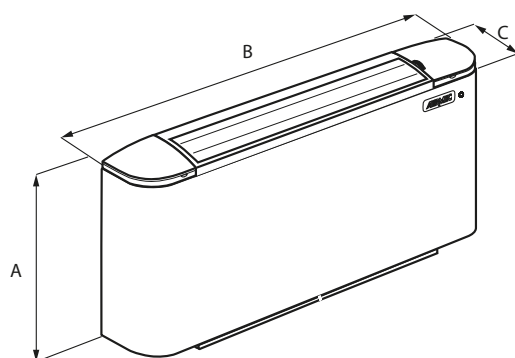
### UL26R - UL26RI



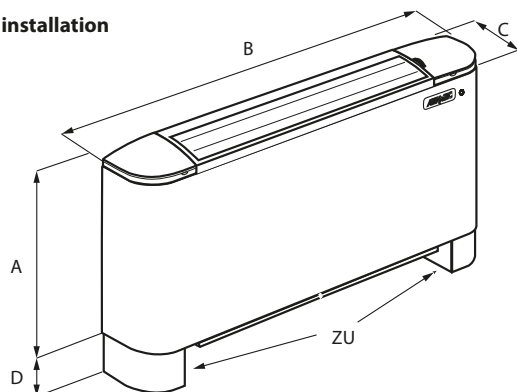
### UL36R - UL36RI



## Dimensions (mm)



Wall installation



Floor installation

Mod OMNIA ULR - ULRI			26	36
Height	A	(mm)	513	513
Width	B	(mm)	980	1200
Depth	C	(mm)	173	173
Height with ZU (Accessories)	D	(mm)	93	93
Weight <sup>(1)</sup>		(kg)	20	24

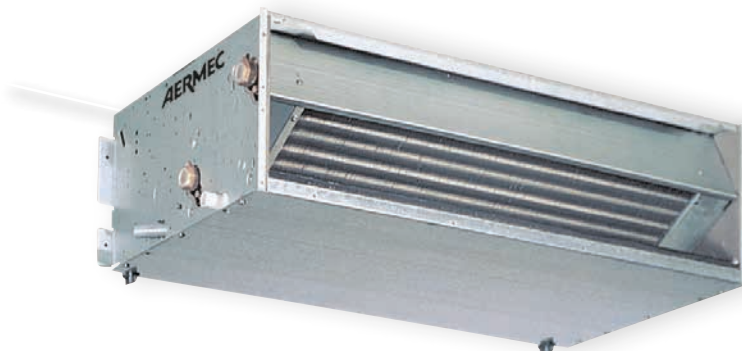
(1) Standard configuration of unit with accessories



Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Variable Multi Flow®**

**VMF**



- **FULLY SILENT FUNCTIONING**
- **FULL COMFORT: REDUCED TEMPERATURE AND RELATIVE HUMIDITY OSCILLATIONS**
- **IDEAL ALSO FOR DUCTED INSTALLATION**

#### Features

Drawing from its wide experience in the field of fan coils, Aermec presents the new series FCZ\_P for duct installations.

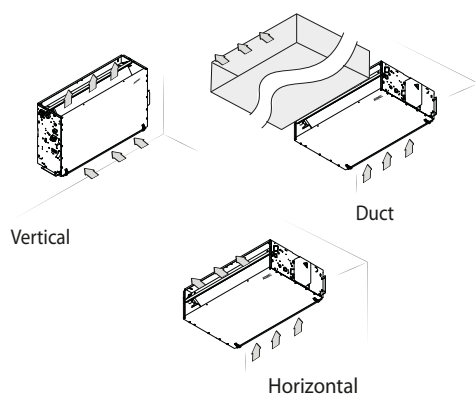
They can be installed on any system with 2/4 pipe and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

**Versions Without control in built,  
Vertical or horizontal installation:**  
**FCZ\_P**  
**FCZ\_PO**  
**FCZ\_PPC**

- 3-speed ventilating unit.
  - Electric motors with permanently inserted condensers
  - Low loss of charge in the heat exchanger
  - Easy installation and maintenance
- G2 air filter for all versions. APC versions is equipped with Plasmacluster purifier**

- Extractable shrouds for easy, effective cleaning
- The hydraulic connections can be inverted during installation (only valid for units with a single coil, those with a supplementary coil cannot be inverted).

#### Versions Description



#### Versions

- **FCZ\_P**  
- Concealed without cabinet
- **FCZ\_PPC**  
- Concealed with Plasmacluster purifier
- **FCZ\_PO**  
- Concealed (ideal also for ducted installation)

#### Vertical or horizontal installation

- For 2/4 pipe system

## Choosing the unit

By appropriately combining the variety of options available, each model can be configured in order to meet all specific system requirements.

Field	Code	7,8	Versions
1,2,3	FCZ		P Concealed mounted without cabinet
4	Size		PO Concealed with oversized motor
	1-2-3-4-5-6-7-8-9-10		PPC Concealed with Plasmacluster purifier
5	Maincoil		
	0 Standard		
	5 Oversized (1)		
6	Supplementary coil		
	0 Without heat exchanger		
	1 Standard		
	2 Oversized		

(1) Oversized coil "5" does not allow the installation of the supplementary coil "1 or 2"

## Size available for version

Versions	Size available with main coil only (2 pipes)																			
FCZ	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	
P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
PO	/	/	•	•	•	•	•	•	•	•	•	•	•	•	/	/	•	•	/	
PPC	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	

Versions	Size available with main and supplementary coil (4 pipes)																	
FCZ	101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
P	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PO	/	/	•	•	•	•	•	•	•	•	•	•	•	•	/	•	•	/
PPC	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

## Accessories

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

### Probes and accessory for control panels

- SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- SIT 3 - 5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

### VMF system

- VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe, 2 pipe + Plasmacluster, 2 pipe + UV lamps, 2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- VMF-E1:** Thermostat for serial communication.
- VMF-SW:** Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.

- VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

### Hot water coil

- BV:** Single row hot water heat exchanger. Not available for versions with Plasmacluster.

### Electrical heater

- RX:** Armoured electrical coil with safety thermostat (requires a thermostat with heater management). Not available for 4-row or Plasmacluster versions

### Valve kit

- VCZ\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
  - VCZ or VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
  - VCZD or VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
  - VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
- The VJP is controlled by on-off logic with compatible control panels (accessories)
- The VJP\_M is controlled by modulating logic with panels not supplied by Aermec
- The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

### Accessory for Installation

- AMP:** kit for the wall mounting installation.
- BC:** Auxiliary condensate drip tray.
- CHF:** The VentilCassaforma is a galvanised sheet steel tem-

plate, for P versions, which allows you to obtain a space for housing the fan coil, directly in the wall.

- DSC4:** Condensate drainage device for use when natural run-off is not possible.
- PA:** Galvanised sheet steel intake plenum equipped with intake fittings for circular section ducts.
- PA-F:** Intake plenum, which allows recovery and flow on the same side. It is suitable for all those installations outside air-conditioned rooms, in order to minimise noise and facilitate maintenance operations.
- PM:** Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.
- RD:** Straight flow fitting for ducting.
- RDA:** Straight intake fitting for ducting.
- RP:** 90° flow fitting for ducting
- RPA:** 90° intake fitting for ducting.

### DUCTING ACCESSORIES

- MZC:** Plenum with motor-driven dampers
- RDA\_V:** Straight intake connection with rectangular flange.
- RDAC\_V:** Straight intake connection with circular flanges.
- RPA\_V:** Intake plenum with rectangular flange.
- RDMC\_V:** Straight discharge with circular flanges. Internally insulated.
- PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.
- RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.
- PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- KFV10:** Circular flanges kit for intake/discharge plenum.

### Grid

- GA:** Intake grid with fixed louvers.
- GAF:** Intake grid with fixed louvers with filter.
- GM:** Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

## Compatibility of accessories

		Size with single Heat Exchanger																		
FCZ_P		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Probes and accessories for control panels																				
KTLP	P-PO	•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	•	•	•
PX-PX2-PX2C6	P-PO (1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAR	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05-06-10	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	P-PO	In combination with FMT21																		
SW3	P-PO	In combination with PXAE or PXAR																		
SIT3	P-PO	In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05-06-10																		
SIT5	P-PPC-PO	In combination with FMT21 or PXAE or PXAR																		
VMF System																				
VMF-E0	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)																				
BV117	P-PO	•																		
BV122	P-PO			•																
BV132	P-PO					•														
BV142	P-PO							•		•										
BVZ800	P-PO											•		•		•				
BV162	P-PO																	•		•
Electrical Heat Exchanger																				
RX17	P-PO	•																		
RX22	P-PO			•																
RX32	P-PO					•														
RX42	P-PO							•												
RX52	P-PO									•										
RXZ800	P-PO											•		•		•				
RX62	P-PO																	•		•
Water valves **																				
Valve Kit for 4 pipe systems with Main coil																				
VCZ1X4L-R	P-PO	•	•	•	•															
VCZ2X4L-R	P-PO					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ3X4L-R	P-PO																	•	•	•
3 way valve kit																				
VCZ41/4124	P-PPC-PO (2)	•	•	•	•															
VCZ42/4224	P-PPC-PO (2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZ43/4324	P-PPC-PO (2)																	•	•	•
2 way valve kit																				
VCZD1/124	P-PPC-PO (2)	•	•	•	•															
VCZD2/224	P-PPC-PO (2)					•	•	•	•	•	•	•	•	•	•	•	•			
VCZD3/324	P-PPC-PO (2)																	•	•	•
Combined adjustment and balancing valve independent of pressure																				
VJP060	P-PPC-PO	•	•	•	•	•	•													
VJP090	P-PPC-PO							•	•	•	•	•	•							
VJP150	P-PPC-PO											•	•	•	•	•	•	•	•	•
VJP060M	P-PPC-PO (2)	•	•	•	•	•	•													
VJP090M	P-PPC-PO (2)							•	•	•	•	•	•							
VJP150M	P-PPC-PO (2)											•	•	•	•	•	•	•	•	•

**PO version only available for size from 2 to 9**

For more details on the control panels and VMF system refer to the dedicated sheet.

\* Contact Aermec

**\*\*The water valves can be combined with the unit if it is also provided a control panel that controls**

(1) **Only for wall installation;** (PX2C6 panel PX2 in multiple 6 pz.)

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VJP060M-VJP090M-VJP150M are 24V

## Compatibility of accessories

		Size with single Heat Exchanger																		
FCZ_P		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
Installation accessories																				
AMP20	P-PPC-PO	•	•	•	•	•	•	•	•	•	•									
AMPZ	P-PPC-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	P-PPC-PO	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ZX7	P-PPC-PO		•	•	•	•	•	•	•	•	•									
ZX8	P-PPC-PO											•	•	•	•	•	•	•	•	•
Auxiliary condensate drip tray																				
BC4	P-PPC-PO	(4)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC5	P-PPC-PO	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC6	P-PPC-PO	(5)																•	•	•
BC8	P-PPC-PO	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC9	P-PPC-PO	(5)																•	•	•
Ventilcassaforma																				
CHF17	P-PPC		•	•																
CHF22	P-PPC-PO				•	•														
CHF32	P-PPC-PO						•	•												
CHF42	P-PPC-PO								•	•	•	•								
CHF62	P-PPC-PO												•	•	•	•	•	•	•	•
Grille																				
GA17	P-PPC		•	•																
GA22	P-PPC-PO				•	•														
GA32	P-PPC-PO						•	•												
GA42	P-PPC-PO								•	•	•	•								
GA62	P-PPC-PO												•	•	•	•	•	•	•	•
GAF17	P-PPC		•	•																
GAF22	P-PPC-PO				•	•														
GAF32	P-PPC-PO						•	•												
GAF42	P-PPC-PO								•	•	•	•								
GAF62	P-PPC-PO												•	•	•	•	•	•	•	•
GM17	P-PPC		•	•																
GM22	P-PPC-PO				•	•														
GM32	P-PPC-PO						•	•												
GM42	P-PPC-PO								•	•	•	•								
GM62	P-PPC-PO												•	•	•	•	•	•	•	•
Accessories for installation																				
PA17	P-PPC		•	•																
PA22	P-PPC-PO				•	•														
PA32	P-PPC-PO						•	•												
PA42	P-PPC-PO								•	•	•	•								
PA62	P-PPC												•	•	•	•	•	•	•	•
PA17F	P-PPC		•	•																
PA22F	P-PPC-PO				•	•														
PA32F	P-PPC-PO						•	•												
PA42F	P-PPC-PO								•	•	•	•								
PA62F	P-PPC												•	•	•	•	•	•	•	•
PM17	P-PPC		•	•																
PM22	P-PPC-PO				•	•														
PM32	P-PPC-PO						•	•												
PM42	P-PPC-PO								•	•	•	•								
PM62	P-PPC												•	•	•	•	•	•	•	•
RD17	P-PPC		•	•																
RD22	P-PPC-PO				•	•														
RD32	P-PPC-PO						•	•												
RD42	P-PPC-PO								•	•	•	•								
RD62	P-PPC												•	•	•	•	•	•	•	•

(3) DSC4 It's not available with AMPZ

(4) For vertical installation. BC4 is not available with valve VCZ-VCZD / VCF-VCFD

(5) For horizontal installation

## Compatibility of accessories

		Size with single Heat Exchanger																		
FCZ_P		100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
RDA17	P-PPC	•	•																	
RDA22	P-PPC-PO			•	•															
RDA32	P-PPC-PO					•	•													
RDA42	P-PPC-PO							•	•	•	•									
RDA62	P-PPC											•	•	•	•	•	•	•	•	•
RPA17	P-PPC	•	•																	
RPA22	P-PPC-PO			•	•															
RPA32	P-PPC-PO					•	•													
RPA42	P-PPC-PO							•	•	•	•									
RPA62	P-PPC											•	•	•	•	•	•	•	•	•
Plenum for duct installation																				
MZC220	PO			•	•															
MZC320	PO					•	•													
MZC530	PO							•	•	•	•									
MZC830	PO											•	•	•	•	•	•	•	•	
RDA000V	PO			•	•															
RDA100V	PO					•	•													
RDA200V	PO							•	•	•	•									
RDA300V	PO											•	•	•	•			•	•	
RPA000V	PO	(6)		•	•															
RPA100V	PO	(6)				•	•													
RPA200V	PO	(6)						•	•	•	•									
RPA300V	PO	(6)										•	•	•	•			•	•	
RDAC000V	PO			•	•															
RDAC100V	PO					•	•													
RDAC200V	PO							•	•	•	•									
RDAC300V	PO											•	•	•	•			•	•	
PA000V	PO	(6)		•	•															
PA100V	PO	(6)				•	•													
PA200V	PO	(6)						•	•	•	•									
PA300V	PO	(6)										•	•	•	•			•	•	
PM000V	PO	(6)		•	•															
PM100V	PO	(6)				•	•													
PM200V	PO	(6)						•	•	•	•									
PM300V	PO	(6)										•	•	•	•			•	•	
RPM000V	PO	(6)		•	•															
RPM100V	PO	(6)				•	•													
RPM200V	PO	(6)						•	•	•	•									
RPM300V	PO	(6)										•	•	•	•			•	•	
RDMC000V	PO			•	•															
RDMC100V	PO					•	•													
RDMC200V	PO							•	•	•	•									
RDMC300V	PO											•	•	•	•			•	•	

**PO version only available for size from 2 to 9**

(6) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).



## Compatibility of accessories

		Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
Probes and accessories for control panels																			
KTLP	P-PO	•	•	•	•	•	•	•	•	•	•	*	*	*	*	*	*	•	•
PXAE	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT06-10	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	P-PO	In combination with FMT21																	
SW3	P-PO	In combination with PXAE																	
SIT3	P-PO	In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05-06-10																	
SIT5	P-PO	In combination with FMT21 or PXAE or PXAR																	
VMF System																			
VMF-E0	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E1	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	P-PO	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Water valve**																			
3 way valve kit																			
VCZ41/4124	P-PO	(2)	•	•	•	•													
VCZ42/4224	P-PO	(2)					•	•	•	•	•	•	•	•	•	•	•		
VCZ43/4324	P-PO	(2)																•	•
2 way valve kit																			
VCZD1/124	P-PO	(2)	•	•	•	•													
VCZD2/224	P-PO	(2)					•	•	•	•	•	•	•	•	•	•	•		
VCZD3/324	P-PO	(2)																•	•
3 way valve kit for heating coil only																			
VCF44/4424	P-PO	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
VCF45/4524	P-PO	(2)																•	•
2 way valve kit for heating coil only																			
VCFD4/424	P-PO	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure																			
VJP060	P-PO		•	•	•	•	•	•											
VJP090	P-PO								•	•	•	•	•						
VJP150	P-PO											•	•	•	•	•	•	•	•
VJP060M	P-PO	(2)	•	•	•	•	•	•											
VJP090M	P-PO	(2)							•	•	•	•	•						
VJP150M	P-PO	(2)										•	•	•	•	•	•	•	•
Accessories for installation																			
AMP20	P-PO		•	•	•	•	•	•	•	•	•								
AMPZ	P-PO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DSC4	P-PO	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ZX7	P-PO		•	•	•	•	•	•	•	•	•								
ZX8	P-PO											•	•	•	•	•	•	•	•
Auxiliary condensate drip tray																			
BC4	P	(4)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BC5	P	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BC6	P	(5)																•	•
BC8	P-PO	(5)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
BC9	P-PO	(5)																•	•
Ventilcassaforma																			
CHF17	P		•	•															
CHF22	P				•	•													
CHF32	P						•	•											
CHF42	P							•	•	•	•								
CHF62	P											•	•	•	•	•	•	•	•

PO version only available for size from 2 to 9

\* Contact Aermec

\*\*The water valves can be combined with the unit if it is also provided a control panel that controls

VJP / VJP\_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

(2) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VCZ4424-VCF4524-VCFD424 are 24V

(3) DSC4 It's not available with AMPZ

(4) For vertical installation

(5) For horizontal installation

## Compatibility of accessories

		Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P		101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
<b>Grille</b>																			
GA17	P	•	•																
GA22	P-PO			•	•														
GA32	P-PO					•	•												
GA42	P-PO							•	•	•	•								
GA62	P-PO											•	•	•	•	•	•	•	•
GAF17	P	•	•																
GAF22	P-PO			•	•														
GAF32	P-PO					•	•												
GAF42	P-PO							•	•	•	•								
GAF62	P-PO											•	•	•	•	•	•	•	•
GMF17	P	•	•																
GMF22	P-PO			•	•														
GMF32	P-PO					•	•												
GMF42	P-PO							•	•	•	•								
GMF62	P-PO											•	•	•	•	•	•	•	•
<b>Accessories for installation</b>																			
PA17	P	•	•																
PA22	P-PO			•	•														
PA32	P-PO					•	•												
PA42	P-PO							•	•	•	•								
PA62	P-PO											•	•	•	•	•	•	•	•
PA17F	P	•	•																
PA22F	P-PO			•	•														
PA32F	P-PO					•	•												
PA42F	P-PO							•	•	•	•								
PA62F	P-PO											•	•	•	•	•	•	•	•
PM17	P	•	•																
PM22	P-PO			•	•														
PM32	P-PO					•	•												
PM42	P-PO							•	•	•	•								
PM62	P-PO											•	•	•	•	•	•	•	•
RD17	P	•	•																
RD22	P-PO			•	•														
RD32	P-PO					•	•												
RD42	P-PO							•	•	•	•								
RD62	P-PO											•	•	•	•	•	•	•	•
RDA17	P	•	•																
RDA22	P-PO			•	•														
RDA32	P-PO					•	•												
RDA42	P-PO							•	•	•	•								
RDA62	P-PO											•	•	•	•	•	•	•	•
RPA17	P	•	•																
RPA22	P-PO			•	•														
RPA32	P-PO					•	•												
RPA42	P-PO							•	•	•	•								
RPA62	P-PO											•	•	•	•	•	•	•	•
<b>Plenum for duct installation</b>																			
MZC220	PO			•	•														
MZC320	PO					•	•												
MZC530	PO							•	•	•	•								
MZC830	PO											•	•	•	•	•	•	•	•

## Compatibility of accessories

			Sizes available for 4-pipe system (Main coil + Secondary coil)																	
FCZ_P			101	102	201	202	301	302	401	402	501	502	601	602	701	702	801	802	901	1001
RDA000V	PO				•	•														
RDA100V	PO					•	•													
RDA200V	PO								•	•	•	•								
RDA300V	PO												•	•	•	•			•	
RPA000V	PO	(6)			•	•														
RPA100V	PO	(6)					•	•												
RPA200V	PO	(6)							•	•	•	•								
RPA300V	PO	(6)											•	•	•	•			•	
RDAC000V	PO				•	•														
RDAC100V	PO						•	•												
RDAC200V	PO								•	•	•	•								
RDAC300V	PO												•	•	•	•			•	
PA000V	PO	(6)			•	•														
PA100V	PO	(6)					•	•												
PA200V	PO	(6)							•	•	•	•								
PA300V	PO	(6)											•	•	•	•			•	
PM000V	PO	(6)			•	•														
PM100V	PO	(6)					•	•												
PM200V	PO	(6)							•	•	•	•								
PM300V	PO	(6)											•	•	•	•			•	
RPM000V	PO	(6)			•	•														
RPM100V	PO	(6)					•	•												
RPM200V	PO	(6)							•	•	•	•								
RPM300V	PO	(6)											•	•	•	•			•	
RDMC000V	PO				•	•														
RDMC100V	PO						•	•												
RDMC200V	PO								•	•	•	•								
RDMC300V	PO												•	•	•	•			•	

### PO version only available for size from 2 to 9

(6) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

Sound pressure level (A-weighted) measured indoors with volume  $V=85\text{m}^3$ , reverberation time  $t = 0.5\text{ s}$ ; Direction factor  $Q = 2$ ; Distance  $r = 2.5\text{m}$

FCZ	501			502			601			602			701			702			801			802			901			1001						
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L				
Heating Performance																																		
4 pipe systems																																		
Heating capacity (65°C)	(1)	kW	3,74	3,34	2,59	6,44	5,66	4,16	4,36	3,67	2,53	7,60	6,24	4,59	4,95	4,29	3,66	8,80	7,48	6,24	5,34	4,79	4,21	9,61	8,50	7,31	5,73	5,63	4,74	6,09	5,57	4,85		
Water flow rate	(1)	l/h	321	287	223	554	486	358	375	316	217	653	536	395	426	369	315	757	643	536	459	412	362	826	731	629	493	484	407	523	479	417		
Pressure drop	(1)	kPa	10	8	5	7	7	3	16	11	7	12	9	5	20	16	15	17	16	12	11	23	19	12	19	15	11	9	15	13	10			
Cooling Performance																																		
Total cooling capacity	(2)	kW	4,25	3,69	2,68	4,25	3,69	2,68	4,65	3,90	3,22	4,65	3,90	3,22	5,50	4,89	3,92	5,50	4,89	3,92	6,10	5,66	4,84	6,10	5,66	4,84	6,91	5,00	4,29	7,62	6,88	5,69		
Sensible cooling capacity	(2)	kW	3,18	2,73	1,94	3,18	2,73	1,94	3,92	3,17	2,56	3,92	3,17	2,56	4,30	3,76	2,99	4,30	3,76	2,99	4,83	4,42	3,72	4,83	4,42	3,72	5,68	3,78	2,97	5,53	5,34	4,42		
Water flow rate	(2)	l/h	731	634	460	731	634	460	800	671	554	800	671	554	946	841	675	946	841	675	1049	974	833	1049	974	833	1189	860	738	1311	1183	979		
Pressure drop	(2)	kPa	29	22	13	29	22	13	26	19	13	26	19	13	30	24	16	30	24	16	30	26	20	30	26	20	22	12	9	37	31	22		
Fans																																		
Centrifugal fans	n°	2					3					3					3					3					3							
Air flow rate	m³/h	720	600	400	920	720	520	920	720	520	920	720	400	1140	930	700	1140	930	700	1300	1120	900	1300	1120	900	1140	930	700	1300	1120	900			
Sound level																																		
Sound power level	(3)	dB(A)	56	51	42	56	51	42	57	51	42	57	51	42	61	57	51	61	57	51	66	61	56	66	61	56	61	57	51	66	61	56		
Sound pressure level		dB(A)	48	43	34	48	43	34	49	43	34	49	43	34	53	49	43	53	49	43	58	53	48	58	53	48	53	49	43	58	53	48		
Hydraulic connections																																		
Main coil	Ø	3/4"					3/4"					3/4"					3/4"					3/4"					3/4"							
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"		
Electrical data																																		
Absorbed power	W	76	52	38	76	52	38	91	60	38	82	61	40	106	80	59	106	80	59	131	100	80	131	100	80	106	80	59	131	100	80			
Connected for speeds		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1			
Power supply		230V~50Hz																																

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)

(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on measurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoor with volume  $V=85\text{m}^3$ , reverberation time  $t=0.5\text{ s}$ ; Direction factor  $Q=2$ ; Distance  $r=2.5\text{m}$

## Technical data (EUROVENT FCP2H) Unit for 2 pipe systems (main coil)

FCZ_PO	200			250			300			350			400			450			500			550				
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
Hating Performance																										
2 pipe systems																										
Heating capacity (70°C)	(1)	kW	3,32	3,00	2,11	3,60	3,24	2,29	5,45	5,03	3,50	6,10	5,59	3,80	6,74	6,02	4,49	7,40	6,62	4,79	7,59	7,22	5,27	8,67	8,25	5,81
Water flow rate	(1)	l/h	285	258	182	310	279	197	469	433	301	524	481	327	580	517	386	637	569	412	652	621	453	746	709	500
Pressure drop	(1)	kPa	15	12	7	19	16	9	18	15	8	21	18	9	22	18	11	15	12	7	23	21	12	21	19	10
Heating capacity (45°C)	(2)	kW	1,65	1,49	1,05	1,79	1,61	1,14	2,71	2,5	1,74	3,03	2,78	1,89	3,35	2,99	2,23	3,68	3,29	2,38	3,77	3,59	2,62	4,31	4,1	2,89
Water flow rate	(2)	l/h	284	256	181	308	277	196	466	430	299	521	478	325	576	514	383	633	566	409	648	617	451	741	705	497
Pressure drop	(2)	kPa	14	12	6	18	15	8	17	15	8	20	17	9	21	17	10	15	12	7	22	20	12	21	19	10
Cooling Performance																										
Total cooling capacity	(3)	kW	1,44	1,3	0,93	1,74	1,59	1,11	2,63	2,4	1,7	3	2,77	1,91	3,41	3,06	2,29	3,79	3,37	2,51	3,82	3,65	2,68	4,28	4,08	2,91
Sensible cooling capacity	(3)	kW	1,18	1,14	0,74	1,36	1,23	0,83	2,03	1,86	1,27	2,16	1,99	1,34	2,52	2,24	1,66	2,73	2,42	1,76	2,83	2,7	1,94	3,09	2,94	2,07
Water flow rate	(3)	l/h	248	224	160	299	273	191	452	413	292	516	476	328	586	526	394	652	580	432	657	628	461	736	702	500
Pressure drop	(3)	kPa	15	13	8	21	17	9	18	16	8	25	21	11	22	18	11	20	16	11	24	22	13	23	21	12
Fans																										
Centrifugal Fans	n°	1					2					2					2									
Air flow rate	m³/h	254	226	148	254	226	148	446	404	263	446	404	263	559	487	346	559	487	346	627	592	400	627	592	400	
High static pressure	Pa	63	50	21	63	50	21	61	50	21	61	50	21	66	50	25	66	50	25	56	50	22	56	50	22	
Sound level																										
Sound Power (Inlet+Radietor)	(4)	dB(A)	59	56	41	59	56	41	54	51	39	54	51	39	55	54	44	55	54	44	57	55	45	57	55	45
Sound Power (Outlet)		dB(A)	55	52	37	55	52	37	49	47	35	49	47	35	52	50	40	52	50	40	53	51	41	53	51	41
Hydraulic connections																										
Main coil																										
Standard	Ø	1/2"			/			3/4"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			1/2"			/			3/4"			/			3/4"			/			3/4"			
Electrical data																										
Absorbed power	W	33	29	25	33	29	25	44	33	25	44	33	25	57	43	30	57	43	30	76	52	38	76	52	38	
Connected for speeds		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply		230V~50Hz																								

FCZ_PO	600			650			700			750			900			950				
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
Hating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	10,00	8,55	6,86	11,51	9,72	7,63	10,52	10,10	8,77	12,09	11,65	10,02	14,45	13,80	11,81	16,00	15,07	12,43
Water flow rate	(1)	l/h	860	735	590	990	836	656	905	868	754	1040	1002	862	1242	1187	1016	1375	1296	1069
Pressure drop	(1)	kPa	26	20	13	31	23	15	27	25	19	16	15	12	20	18	14	29	26	19
Heating capacity (45°C)	(2)	kW	4,97	4,25	3,41	5,72	4,83	3,79	5,23	5,02	4,36	6,01	5,79	4,98	7,18	6,86	5,87	7,95	7,49	6,18
Water flow rate	(2)	l/h	855	731	586	984	831	652	899	863	750	1034	996	856	1235	1180	1009	1367	1288	1063
Pressure drop	(2)	kPa	25	19	13	31	22	14	26	24	19	16	15	12	20	18	14	29	26	18
Cooling Performance																				
Total cooling capacity	(3)	kW	4,65	4,08	3,37	5,67	5,02	4,15	5,18	4,97	4,24	5,8	5,53	4,69	5,95	5,33	4,38	8,07	7,62	6,35
Sensible cooling capacity	(3)	kW	3,92	3,34	2,7	4,12	3,6	2,93	4,02	3,83	3,24	4,41	4,2	3,53	4,73	4,11	3,11	5,4	5,08	4,2
Water flow rate	(3)	l/h	800	702	580	975	863	714	891	855	729	997	951	807	1023	917	753	1388	1310	1092
Pressure drop	(3)	kPa	26	21	15	28	22	16	28	26	19	17	15	11	17	14	10	27	24	17
Fans																				
Centrifugal Fans	n°	3			3			3			3			3			3			
Air flow rate	m³/h	920	770	567	920	770	567	1050	978	785	1050	978	785	1050	978	785	1050	978	785	
High static pressure	Pa	71	50	27	71	50	27	58	50	32	58	50	32	58	50	32	58	50	32	
Sound level																				
Sound Power (Inlet+Radietor)	(4)	dB(A)	61	56	46	61	56	46	62	60	54	62	60	54	62	60	54	62	60	54
Sound Power (Outlet)		dB(A)	60	54	44	60	54	44	61	59	52	61	59	52	61	59	52	61	59	52
Hydraulic connections																				
Main coil																				
Standard	Ø	3/4"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			3/4"			/			3/4"			/			3/4"			
Electrical data																				
Absorbed power	W	91	60	38	91	60	38	106	80	59	106	80	59	106	80	59	106	80	59	
Connected for speeds		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply		230V~50Hz																		

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Technical data (EUROVENT FCP4H) Unit for 4 pipe systems (with main + supplementary coil)

FCZ_PO		201			202			301			302			401			402			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Hating Performance																				
4 pipe systems																				
Heating capacity (65°C)	(1)	kW	1,48	1,37	1,06	2,47	2,27	1,65	2,55	2,39	1,82	4,30	0,40	2,88	2,99	2,75	2,19	5,03	4,54	3,48
Water flow rate	(1)	l/h	127	118	91	212	195	141	219	206	156	370	35	248	257	236	188	432	390	299
Pressure drop	(1)	kPa	9	8	5	6	5	3	13	12	8	23	20	11	8	7	5	7	6	4
Cooling Performance																				
Total cooling capacity	(2)	kW	1,44	1,31	0,93	1,44	1,31	0,93	2,63	2,44	1,70	2,63	2,44	1,70	3,41	3,06	2,29	3,41	3,06	2,29
Sensible cooling capacity	(2)	kW	1,18	1,07	0,74	1,18	1,07	0,74	2,03	1,86	1,27	2,03	1,86	1,27	2,52	2,24	1,66	2,52	2,24	1,66
Water flow rate	(2)	l/h	248	225	160	248	225	160	452	420	292	452	420	292	586	526	394	586	526	394
Pressure drop	(2)	kPa	15	13	7	15	13	7	18	16	8,5	18	16	8,5	22	18	11	22	18	11
Fans																				
Centrifugal Fans	n°	1					2					2								
Air flow rate	m³/h	254	226	148	254	226	148	446	404	263	446	404	263	559	487	346	559	487	346	
High static pressure	Pa	63	50	21	63	50	21	61	50	21	61	50	21	66	50	25	66	50	25	
Sound level																				
Sound Power (Inlet+Radiator)	(3)	dB(A)	59	56	41	59	56	41	54	51	39	54	51	39	55	54	44	55	54	44
Sound Power (Outlet)		dB(A)	55	52	37	55	52	37	49	47	35	49	47	35	52	50	40	52	50	40
Hydraulic connections																				
Main coil	Ø	1/2"					3/4"					3/4"								
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																				
Absorbed power	W	35	29	25	35	25	13	44	33	25	44	33	25	57	43	30	57	43	30	
Connected for speeds		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply	V/ph/Hz	230V~50Hz																		

FCZ_PO		501			502			601			602			701			702			901			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Hating Performance																							
4 pipe systems																							
Heating capacity (65°C)	(1)	kW	3,34	3,30	2,59	5,84	5,60	4,17	4,35	3,85	3,13	7,59	6,56	5,37	4,60	4,40	4,13	8,13	7,70	7,07	5,77	5,71	5,16
Water flow rate	(1)	l/h	287	284	223	502	482	359	374	331	269	653	564	462	396	378	355	699	662	608	496	491	444
Pressure drop	(1)	kPa	9	8	5	6	6	3	16	13	9	13	10	7	16	15	15	15	13	11	12	12	10
Cooling Performance																							
Total cooling capacity	(2)	kW	3,82	3,65	2,68	3,82	3,65	2,68	4,65	4,08	3,37	4,65	4,08	3,37	5,18	4,97	4,24	5,18	4,97	4,24	5,95	5,33	4,38
Sensible cooling capacity	(2)	kW	2,83	2,70	1,94	2,83	2,70	1,94	3,92	3,34	2,70	3,92	3,34	2,70	4,02	3,83	3,24	4,02	3,83	3,24	4,73	4,11	3,11
Water flow rate	(2)	l/h	657	628	461	657	628	461	800	702	580	800	702	580	891	855	729	891	855	729	1023	917	753
Pressure drop	(2)	kPa	24	22	13	24	22	13	26	21	15	26	21	15	28	26	19,5	28	26	19	17	14	10
Fans																							
Centrifugal Fans	n°	2					3					3					3						
Air flow rate	m³/h	627	592	400	627	592	400	920	770	567	920	770	567	1050	978	785	1050	978	785	1050	978	785	
High static pressure	Pa	56	50	22	56	50	22	71	50	27	71	50	27	58	50	32	58	50	32	58	50	32	
Sound level																							
Sound Power (Inlet+Radiator)	(3)	dB(A)	57	55	45	57	55	45	61	56	46	61	56	46	62	60	54	62	60	54	62	60	54
Sound Power (Outlet)		dB(A)	53	51	41	53	51	41	60	54	44	60	54	44	61	59	52	61	59	52	61	59	52
Hydraulic connections																							
Main coil	Ø	3/4"					3/4"					3/4"					3/4"						
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																							
Absorbed power	W	76	52	38	76	52	38	91	60	38	82	61	40	106	80	59	106	80	59	106	80	59	
Connected for speeds		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply	V/ph/Hz	230V~50Hz																					

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)

(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on measurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoor with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Dimensions and Weights

FCZ_P / PO / PPC			100 101 102 150				200 201 202 250				300 301 302 350				400 401 402 450				500 501 502 550			
Dimensions for all versions																						
A	A	mm	216				216				216				216				216			
B	B	mm	412				522				753				973				973			
C	D	mm	453				453				453				453				453			
D*	C	mm	452				562				793				1013				1013			
Weight		kg	12	12	13	13	12	13	14	14	14	15	16	16	20	21	22	22	23	23	24	24
FCZ_P / PO / PPC			600 601 602 650				700 701 702 750				800 801 802 850				900 901 / 950				1000	1001	/	/
Dimensions for all versions																						
A		mm	216				216				216				216				216			
B		mm	1122				1122				1122				1122				1122			
C		mm	453				453				453				558				558			
D*		mm	1147				1147				1147				1147				1147			
Weight		kg	29	30	31	31	26	27	28	28	26	27	28	28	32				32			

## FCZI P

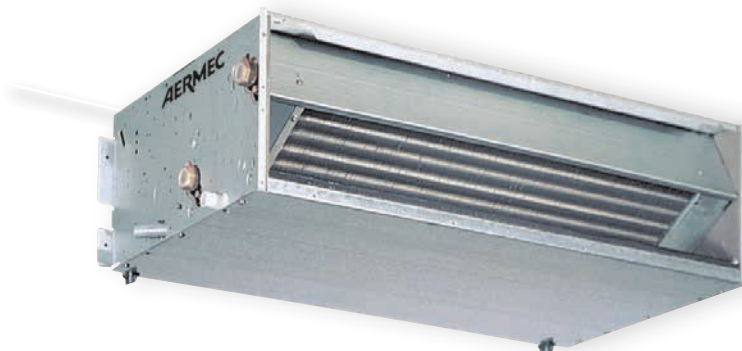
Fan coils with Inverter Brushless motor (EC)  
Concealed installation



Aermec is participating in the EUROVENT Program : FCH The related products can be found at the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Variable Multi Flow®**

VMF



- **ELECTRIC SAVING EQUAL TO 50% COMPARED TO A FAN COIL WITH 3-SPEED MOTOR**
- **FULLY SILENT FUNCTIONING**
- **FULL COMFORT: REDUCED TEMPERATURE AND RELATIVE HUMIDITY OSCILLATIONS**

### Caratteristiche

Drawing from its wide experience in the field of fan coils, Aermec presents the new series FCZI\_P for duct installations.

The inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.

The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems. This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.

The high efficiency even with low speed, makes it

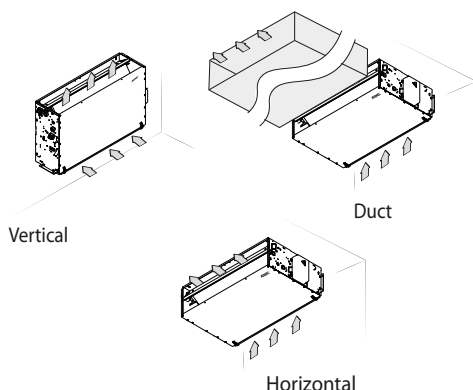
possible to reduce power consumption (more than 50% less than fan coils with traditional motors). In term of noise, in any operating condition exceptional values have been observed.

They can be installed on any system with 2/4 pipe and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

**Versions without control in built,  
Vertical or horizontal installation:  
FCZI\_P**

- Brushless motor with 0-100% speed continuous variation to guarantee best performance at very low sound level
- Low loss of charge in the heat exchanger
- Easy installation and maintenance
- Air filter **G2** for all versions.
- Extractable shrouds for easy, effective cleaning
- Water connections can be reversed during installation phase

### Versions Description



#### Versions

- **FCZI\_P**  
- wall/ceiling mounted without cabinet

#### Vertical or horizontal installation

- For 2/4 pipe system

\* In the standard configuration it is not static pressure available. Should it be necessary for ducted installations, we must act on the dip switch on the motor. For further concerning refer to the technical documentation.



## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

<b>Field</b>	<b>Code</b>
<b>1,2,3</b>	<b>FCZI</b>
<b>4</b>	<b>Size</b>
	2-3-4-5-7-9
<b>5</b>	<b>Maincoil</b>
	0 Standard
	5 Oversized (1)
<b>6</b>	<b>Supplementary coil</b>
	0 Without heat exchanger
	1 Standard
	2 Oversized
<b>7,8</b>	<b>Versions</b>
	P Wall/ceiling mounted without cabinet

(1) With increase coil "5" no coil can be fit with heat only "1 or 2"

## Size available for version

Version	Size available with main coil only (2 pipes)											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
P	.	.	.	.	.	.	.	.	.	.	.	.

Version	Size available with main and supplementary coil (4 pipes)											
FCZI	201	202	301	302	401	402	501	502	701	702	901	
P	.	.	.	.	.	.	.	.	.	.	.	.

## Accessories

### Control panel

A range of dedicated controls, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

### Probes and accessories for control panels

- **WMT21:** Electronic thermostat with LCD display (wall installation).
- **SWAI:** Water temperature probe for WMT21 control panels. Cable length L=2m.

### VMF system

- **VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18:** Thermostat for serial communication
- **VMF-SW:** water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

### Coil - Hot water

- **BV:** Single row hot water heat exchanger

### Kit water valve

- **VCZ\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection

- **VCZ or VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCZD or VCFD:** Kit consisting of powered 2-way valve, copper Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.  
The VJP is controlled by on-off logic with compatible control panels (accessories)  
The VJP\_M is controlled by modulating logic with panels not supplied by Aermec  
The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

### Installation accessoires

- **AMP:** kit for the wall mounting installation.
- **BC:** Auxiliary condensate drip tray.
- **CHF:** The VentilCassaforma is a galvanised sheet steel template, for P versions, which allows you to obtain a space for housing the fan coil, directly in the wall.
- **DSC4:** Condensate drainage device for use when natural run-off is not possible.

### Grid

- **GA:** Intake grid with fixed louvers.

- **GAF:** Intake grid with fixed louvers with filter.
- **GM:** Flow grid with adjustable louvers.

### Plenum and accessoires for ducting

- **MZC:** Plenum with motor-driven dampers
- **PA:** Galvanised sheet steel intake plenum equipped with intake fittings for circular section ducts.
- **PA-F:** Intake plenum, which allows recovery and flow on the same side. It is suitable for all those installations outside air-conditioned rooms, in order to minimise noise and facilitate maintenance operations.
- **PM:** Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.
- **RD:** Straight flow fitting for ducting.
- **RDA:** Straight intake fitting for ducting.
- **RP:** 90° flow fitting for ducting
- **RPA:** 90° intake fitting for ducting.

Refer to dedicated product Leaflet for further details concerning control panel and VMF System

## Compatibility of accessories

	Single coil models											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
Probes and accessories for control panels												
WMT21	•	•	•	•	•	•	•	•	•	•	•	•
SWAI	In combination with WMT21											
VMF System												
VMF-E18	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E5	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•	•	•	•	•
Additional coil (heating only)												
BV122	•											
BV132			•									
BV142					•		•					
BVZ800									•			
BV162											•	
Water valves*												
Valve Kit for 4 pipe systems with Main coil												
VCZ1X4L-R	•	•										
VCZ2X4L-R			•	•	•	•	•	•	•	•		
VCZ3X4L-R											•	•
3 way valve kit												
VCZ41/4124	(1)	•	•									
VCZ42/4224	(1)			•	•	•	•	•	•	•		
VCZ43/4324	(1)										•	•
2 way valve kit												
VCZD1/124	(1)	•	•									
VCZD2/224	(1)			•	•	•	•	•	•	•		
VCZD3/324	(1)			•	•	•	•	•	•	•	•	•
Combined adjustment and balancing valve independent of pressure**												
VJP060		•	•	•	•							
VJP090						•	•	•	•			
VJP150										•	•	•
VJP060M	(1)	•	•	•	•							
VJP090M	(1)					•	•	•	•			
VJP150M	(1)									•	•	•
Installation accessories												
AMP20		•	•	•	•	•	•	•	•			
AMPZ		•	•	•	•	•	•	•	•	•	•	•
DSC4	(2)	•	•	•	•	•	•	•	•	•	•	•
Auxiliary condensate drip tray												
BC4	(3)	•	•	•	•	•	•	•	•	•		
BC5	(4)	•	•	•	•	•	•	•	•	•		
BC6	(4)										•	•
BC8	(4)	•	•	•	•	•	•	•	•	•		
BC9	(4)										•	•
Ventilcassaforma												
CHF22		•	•									
CHF32				•	•							
CHF42						•	•	•	•			
CHF62										•	•	•

For further concerning control panels and VMF system refer to the dedicated sheets.

\* The water valves can be combined with the unit if it is also provided a control panel that controls

\*\* VJP / VJP\_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VCZD424-VCZD524-VCZD624 are 24V

(2) DSC4 It's not available with AMPZ

(3) For vertical installation. BC4 is not available with valve VCZ-VCZD / VCF-VCZD

(4) For horizontal installation

## Compatibility of accessories

	Single coil models											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
<b>Grille</b>												
GA22	.	.										
GA32			.	.								
GA42					.	.	.	.				
GA62									.	.	.	.
GAF22	.	.										
GAF32			.	.								
GAF42					.	.	.	.				
GAF62									.	.	.	.
GM22	.	.										
GM32			.	.								
GM42					.	.	.	.				
GM62									.	.	.	.
<b>Accessoires for installation</b>												
PA22	.	.										
PA32			.	.								
PA42					.	.	.	.				
PA62									.	.	.	.
PA22F	.	.										
PA32F			.	.								
PA42F					.	.	.	.				
PA62F									.	.	.	.
PM22	.	.										
PM32			.	.								
PM42					.	.	.	.				
PM62									.	.	.	.
RD22	.	.										
RD32			.	.								
RD42					.	.	.	.				
RD62									.	.	.	.
RDA22	.	.										
RDA32			.	.								
RDA42					.	.	.	.				
RDA62									.	.	.	.
RPA17												
RPA22	.	.										
RPA32			.	.								
RPA42					.	.	.	.				
RPA62									.	.	.	.
<b>Plenum for duct installation</b>												
MZC220	.	.										
MZC320			.	.								
MZC530					.	.	.	.				
MZC830									.	.	.	
RDA000V	.	.										
RDA100V			.	.								
RDA200V					.	.	.	.				
RDA300V									.	.	.	.
RPA000V	.	.										
RPA100V			.	.								
RPA200V					.	.	.	.				
RPA300V									.	.	.	.
RDAC000V	.	.										
RDAC100V			.	.								
RDAC200V					.	.	.	.				
RDAC300V									.	.	.	.
PA000V	.	.										
PA100V			.	.								
PA200V					.	.	.	.				
PA300V									.	.	.	.

## Compatibility of accessories

	Single coil models											
FCZI	200	250	300	350	400	450	500	550	700	750	900	950
PM000V	•	•										
PM100V			•	•								
PM200V					•	•	•	•				
PM300V									•	•	•	•
RPM000V	•	•										
RPM100V			•	•								
RPM200V					•	•	•	•				
RPM300V									•	•	•	•
RDMC000V	•	•										
RDMC100V			•	•								
RDMC200V					•	•	•	•				
RDMC300V									•	•	•	•

		Twin coil models										
FCZI		201	202	301	302	401	402	501	502	701	702	901
Probes and accessories for control panels												
WMT21		•	•	•	•	•	•	•	•	•	•	•
SWAI		In combination with WMT21										
VMF System												
VMF-E18		•	•	•	•	•	•	•	•	•	•	•
VMF-E4		•	•	•	•	•	•	•	•	•	•	•
VMF-E5		•	•	•	•	•	•	•	•	•	•	•
VMF-SW		•	•	•	•	•	•	•	•	•	•	•
VMF-SW1		•	•	•	•	•	•	•	•	•	•	•
Water valves												
3 way valve kit												
VCZ41/4124	(1)	•	•									
VCZ42/4224	(1)			•	•	•	•	•	•	•	•	
VCZ43/4324	(1)											•
2 way valve kit												
VCZD1/124	(1)	•	•									
VCZD2/224	(1)			•	•	•	•	•	•	•	•	
VCZD3/324	(1)											•
Combined adjustment and balancing valve independent of pressure**												
VJP060		•	•	•	•							
VJP090						•	•	•	•			
VJP150										•	•	•
VJP060M	(1)	•	•	•	•							
VJP090M	(1)					•	•	•	•			
VJP150M	(1)									•	•	•
3 way valve kit for heating coil only												
VCF44/4424	(1)	•	•	•	•	•	•	•	•	•	•	
VCF45/4524	(1)											•
2 way valve kit for heating coil only												
VCFD4/424	(1)	•	•	•	•	•	•	•	•	•	•	•
Accessoires for installation												
AMP20		•	•	•	•	•	•	•	•			
AMPZ		•	•	•	•	•	•	•	•	•	•	•
DSC4	(2)	•	•	•	•	•	•	•	•	•	•	•
Auxiliary condensate drip tray												
BC4	(3)	•	•	•	•	•	•	•	•	•	•	
BC5	(4)	•	•	•	•	•	•	•	•	•	•	
BC6	(4)											•
BC8	(4)	•	•	•	•	•	•	•	•	•	•	
BC9	(4)											•

For further concerning control panels and VMF system refer to the dedicated sheets.

**\* The water valves can be combined with the unit if it is also provided a control panel that controls**

**\*\* VJP / VJP\_M The compatibility of the valves in the hot branch plant 4 tubes, check with the design water flow**

(1) VCZ4124-VCZ4224-VCZ4324-VCZD124-VCZD224-VCZD324-VCF4424-VCF4524-VCZD424 are 24V

(2) DSC4 It's not available with AMPZ

(3) For vertical installation. BC4 is not available with valve VCZ-VCZD / VCF-VCZD

(4) For horizontal installation

## Compatibility of accessories

	Twin coil models										
FCZI	201	202	301	302	401	402	501	502	701	702	901
<b>Ventilcassaforma</b>											
CHF17											
CHF22	.	.									
CHF32			.	.							
CHF42					.	.	.	.			
CHF62									.	.	.
<b>Grille</b>											
GA17											
GA22	.	.									
GA32			.	.							
GA42					.	.	.	.			
GA62									.	.	.
GAF17											
GAF22	.	.									
GAF32			.	.							
GAF42					.	.	.	.			
GAF62									.	.	.
GM17											
GM22	.	.									
GM32			.	.							
GM42					.	.	.	.			
GM62									.	.	.
<b>Accessoires for installation</b>											
PA17											
PA22	.	.									
PA32			.	.							
PA42					.	.	.	.			
PA62									.	.	.
PA17F											
PA22F	.	.									
PA32F			.	.							
PA42F					.	.	.	.			
PA62F									.	.	.
PM17											
PM22	.	.									
PM32			.	.							
PM42					.	.	.	.			
PM62									.	.	.
RD17											
RD22	.	.									
RD32			.	.							
RD42					.	.	.	.			
RD62									.	.	.
RDA17											
RDA22	.	.									
RDA32			.	.							
RDA42					.	.	.	.			
RDA62									.	.	.
RPA17											
RPA22	.	.									
RPA32			.	.							
RPA42					.	.	.	.			
RPA62									.	.	.
<b>Plenum for duct installation</b>											
MZC220	.	.									
MZC320			.	.							
MZC530					.	.	.	.			
MZC830									.	.	.

## Compatibility of accessories

	Twin coil models										
FCZI	201	202	301	302	401	402	501	502	701	702	901
RDA000V	•	•									
RDA100V			•	•							
RDA200V					•	•	•	•			
RDA300V									•	•	•
RPA000V	•	•									
RPA100V			•	•							
RPA200V					•	•	•	•			
RPA300V									•	•	•
RDAC000V	•	•									
RDAC100V			•	•							
RDAC200V					•	•	•	•			
RDAC300V									•	•	•
PA000V	•	•									
PA100V			•	•							
PA200V					•	•	•	•			
PA300V									•	•	•
PM000V	•	•									
PM100V			•	•							
PM200V					•	•	•	•			
PM300V									•	•	•
RPM000V	•	•									
RPM100V			•	•							
RPM200V					•	•	•	•			
RPM300V									•	•	•
RDMC000V	•	•									
RDMC100V			•	•							
RDMC200V					•	•	•	•			
RDMC300V									•	•	•

## Technical data (EUROVENT FC2H) Unit for 2 pipe systems (main coil)

FCZI_P		200			250			300			350			400			450			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	3,70	2,95	2,02	4,05	3,18	2,20	5,50	4,46	3,47	6,15	4,92	3,77	7,15	5,74	4,32	7,82	6,29	4,57
Water flow rate	(1)	l/h	318	253	173	348	273	189	473	383	298	529	423	324	615	493	371	672	532	393
Pressure drop	(1)	kPa	20	13	7	31	20	11	17	12	7	28	19	12	32	21	11	22	13	9
Heating capacity (45°C)	(2)	kW	1,84	1,46	1,00	2,01	1,58	1,09	2,73	2,21	1,72	3,06	2,44	1,87	3,55	2,85	2,14	3,88	3,12	2,27
Water flow rate	(2)	l/h	319	254	174	350	274	190	475	385	299	531	425	325	617	495	373	675	543	394
Pressure drop	(2)	kPa	17	12	6	22	15	8	17	12	8	20	14	8	23	16	9	16	11	6
Cooling Performance																				
Total cooling capacity	(3)	kW	1,60	1,28	0,89	1,94	1,55	1,06	2,65	2,17	1,68	3,02	2,46	1,89	3,60	2,92	2,21	4,03	3,21	2,41
Sensible cooling capacity	(3)	kW	1,33	1,05	0,71	1,52	1,20	0,79	2,04	1,65	1,26	2,18	1,76	1,33	2,67	2,14	1,59	2,90	2,30	1,69
Water flow rate	(3)	l/h	275	221	153	334	267	182	456	374	288	560	460	350	619	503	379	694	552	414
Pressure drop	(3)	kPa	18	12	6	25	17	8	18	12	8	25	17	11	24	16	10	22	15	9
Fans																				
Centrifugal Fans	n°	1						2						2						
Air flow rate	m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	
Sound level																				
Sound power level	(4)	dB(A)	51	46	35	51	46	35	48	41	34	48	41	34	51	44	37	51	44	37
Sound pressure level		dB(A)	43	58	27	43	58	27	40	33	26	40	33	26	43	36	29	43	36	29
Hydraulic connections																				
Main coil																				
Standard	Ø	1/2"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			1/2"			/			3/4"			/			3/4"			
Electrical data																				
Absorbed power	W	14	8	5	14	8	5	13	7	5	13	7	5	18	10	5	18	10	5	
Power supply	V/ph/Hz	230V~50Hz																		

FCZI_P		500			550			700			750			900			950			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	8,50	7,31	5,27	9,75	8,34	5,82	11,00	9,80	8,10	12,50	11,30	9,10	15,14	13,35	10,77	17,10	14,42	11,20
Water flow rate	(1)	l/h	731	629	453	838	717	500	946	843	696	1075	972	782	1328	1171	945	1500	1295	982
Pressure drop	(1)	kPa	42	42	42	33	25	14	37	30	21	20	16	11	21	16	11	32	23	15
Heating capacity (45°C)	(2)	kW	4,22	3,63	2,62	4,85	4,14	2,89	5,47	4,87	4,03	6,21	5,62	4,52	7,53	6,64	5,35	8,50	7,17	5,57
Water flow rate	(2)	l/h	734	631	455	842	720	502	950	846	699	1079	975	786	1307	1152	930	1476	1245	967
Pressure drop	(2)	kPa	28	21	12	25	19	10	29	23	16	17	14	10	21	17	12	33	24	15
Cooling Performance																				
Total cooling capacity	(3)	kW	4,25	3,69	2,68	4,79	4,13	2,91	5,50	4,89	3,92	6,14	5,34	4,27	6,91	5,00	4,29	8,60	7,32	5,77
Sensible cooling capacity	(3)	kW	3,18	2,73	1,94	3,49	2,98	2,07	4,30	3,76	2,99	4,72	4,05	3,20	5,68	3,78	2,97	5,78	4,87	3,80
Water flow rate	(3)	l/h	731	634	460	824	711	501	946	841	675	1056	918	734	1189	860	738	1479	1259	992
Pressure drop	(3)	kPa	29	22	13	28	21	11	30	24	16	18	14	10	22	12	9	30	22	15
Fans																				
Centrifugal Fans	n°	2					3					3								
Air flow rate	m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	1140	930	700	
Sound level																				
Sound power level	(4)	dB(A)	56	51	42	56	51	42	62	57	50	62	57	50	62	57	51	61	57	51
Sound pressure level		dB(A)	48	43	34	48	43	34	54	49	42	54	49	42	54	49	43	53	49	43
Hydraulic connections																				
Main coil																				
Standard	Ø	3/4"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			3/4"			/			3/4"			/			3/4"			
Electrical data																				
Absorbed power	W	19	10	4	19	10	4	80	40	30	80	40	30	80	40	30	80	40	30	
Power supply	V/ph/Hz	230V~50Hz																		

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level: based on measurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Technical data (EUROVENT FC2H) Unit for 2 pipe systems (main coil)

FCZI_P	201			202			301			302			401			402				
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
Hating Performance																				
4 pipe systems																				
Heating capacity (65°C)	(1)	kW	1,61	1,36	1,02	2,73	2,23	1,57	2,56	2,19	1,81	4,33	3,58	2,84	3,13	2,65	2,13	5,29	4,34	3,35
Water flow rate	(1)	l/h	138	117	88	234	191	135	221	188	155	372	308	244	269	228	183	455	373	288
Pressure drop	(1)	kPa	10	7	5	7	5	3	29	22	15	22	16	11	8	7	4	7	4	3
Cooling Performance																				
Total cooling capacity	(2)	kW	1,60	1,28	0,89	1,60	1,28	0,89	2,65	2,17	1,68	2,65	2,17	1,68	3,60	2,92	2,21	3,60	2,92	2,21
Sensible cooling capacity	(2)	kW	1,33	1,05	0,71	1,33	1,05	0,71	2,04	1,65	1,26	2,04	1,65	1,26	2,67	2,14	1,59	2,67	2,14	1,59
Water flow rate	(2)	l/h	275	221	153	275	221	153	456	374	288	456	374	288	619	503	379	619	503	379
Pressure drop	(2)	kPa	18	12	6	18	12	6	18	12	8	18	12	8	24	16	10	24	16	10
Fans																				
Centrifugal fans	n°	1					2					2								
Air flow rate	m³/h	290	220	140	290	220	140	450	350	260	450	350	260	600	460	330	600	460	330	
Sound level																				
Sound power level	(3)	dB(A)	50	43	31	50	43	31	48	41	34	48	41	34	51	44	39	51	44	39
Sound pressure level		dB(A)	42	35	23	42	35	23	40	33	26	40	33	26	43	36	31	43	36	31
Hydraulic connection																				
Main coil	Ø	1/2"					3/4"					3/4"								
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																				
Absorbed power	W	14	8	5	14	8	5	13	7	5	13	7	5	18	10	5	18	10	5	
Power supply	V/ph/Hz	230V~50Hz																		

FCZI_P			501			502			701			702			901			
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Hating Performance																		
4 pipe systems																		
Heating capacity (65°C)		(1)	kW	3,74	3,34	2,59	6,44	5,66	4,16	4,95	4,29	3,66	8,80	7,48	6,24	5,73	5,63	4,74
Water flow rate		(1)	l/h	321	287	223	554	486	358	426	369	315	757	643	536	493	484	407
Pressure drop		(1)	kPa	10	8	5	7	7	3	20	16	15	16	12	11	12	11	9
Cooling Performance																		
Total cooling capacity		(2)	kW	4,25	3,69	2,68	4,25	3,69	2,68	5,50	4,89	3,92	5,50	4,89	3,92	6,91	5,00	4,29
Sensible cooling capacity		(2)	kW	3,18	2,73	1,94	3,18	2,73	1,94	4,30	3,76	2,99	4,30	3,76	2,99	5,68	3,78	2,97
Water flow rate		(2)	l/h	731	634	460	731	634	460	946	841	675	946	841	675	1189	860	738
Pressure drop		(2)	kPa	29	22	13	29	22	13	30	24	16	30	24	16	22	12	9
Fans																		
Centrifugal fans		n°	2						3						3			
Air flow rate		m³/h	720	600	400	720	600	400	1140	930	700	1140	930	700	1140	930	700	
Sound level																		
Sound power level		(3)	dB(A)	56	51	42	56	51	42	61	57	51	61	57	51	61	57	51
Sound pressure level			dB(A)	48	43	34	48	43	34	53	49	43	53	49	43	53	49	43
Hydraulic connection																		
Main coil		Ø	3/4"						3/4"						3/4"			
Additional coil		Ø	1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																		
Absorbed power		W	19	10	4	19	10	4	80	40	30	80	40	30	80	40	30	
Power supply		V/ph/Hz	230V~50Hz															

(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)

(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on mesurement in compliance with Eurotest 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m



## Technical data (EUROVENT FCP2H) Unit for 2 pipe systems (main coil)

FCZI_P	200			250			300			350			400			450				
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
Hating Performance																				
2 pipe systems																				
Heating capacity (70°C)	(1)	kW	3,34	3,16	1,81	3,62	3,40	2,01	5,23	4,83	3,08	5,83	5,43	3,32	6,34	5,85	3,96	6,96	6,44	4,10
Water flow rate	(1)	l/h	287	272	156	311	292	173	450	415	265	502	467	285	545	503	341	599	554	353
Pressure drop	(1)	kPa	16	13	6	19	17	7	16	14	7	19	17	7	19	17	9	13	12	5
Heating capacity (45°C)	(2)	kW	1,66	1,57	0,9	1,8	1,69	1	2,6	2,4	1,53	2,9	2,7	1,65	3,15	2,91	1,97	3,46	3,2	2,04
Water flow rate	(2)	l/h	285	270	155	310	291	172	447	413	263	499	464	284	542	500	339	595	550	351
Pressure drop	(2)	kPa	16	13	6	19	17	7	16	14	7	19	17	7	19	17	9	13	12	5
Cooling Performance																				
Total cooling capacity	(3)	kW	1,45	1,37	0,80	1,76	1,67	0,95	2,53	2,38	1,40	2,88	2,70	1,66	3,21	2,98	2,03	3,55	3,28	2,22
Sensible cooling capacity	(3)	kW	1,20	1,13	0,63	1,37	1,29	0,70	1,94	1,82	1,10	2,07	1,94	1,15	2,36	2,18	1,45	2,56	2,35	1,54
Water flow rate	(3)	l/h	249	236	138	303	287	163	435	409	241	495	464	285	552	512	349	610	564	382
Pressure drop	(3)	kPa	16	14	8	21	19	10	17	15	9	23	21	11	20	13	11	18	16	11
Fans																				
Centrifugal fans	n°	1						2						2						
Air flow rate	m³/h	257	240	123	257	240	123	424	390	225	424	390	225	515	470	300	515	470	300	
High static pressure	Pa	57	50	13	57	50	13	59	50	16	53	50	16	60	50	20	56	50	20	
Sound level																				
Sound Power (Inlet+Radietor)	(4)	dB(A)	59	57	37	59	57	37	53	50	36	53	50	36	55	53	43	55	53	43
Sound Power (Outlet)		dB(A)	55	53	33	55	53	33	49	47	32	49	47	32	52	49	39	52	49	39
Hydraulic connections																				
Main coil																				
Standard	Ø	1/2"			/			3/4"			/			3/4"			/			
Oversized	Ø	/			1/2"			/			3/4"			/			3/4"			
Electrical data																				
Absorbed power	W	31	27	7	31	27	7	40	11	10	40	30	10	48	38	18	48	38	18	
Power supply	V/ph/Hz	230V~50Hz																		

FCZI_P			500			550			700			750			900			950			
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Hating Performance																					
2 pipe systems																					
Heating capacity (70°C)		(1)	kW	7,63	7,28	5,39	8,71	8,37	5,92	8,88	8,34	5,33	10,15	9,52	6,17	11,87	11,15	6,58	12,66	11,63	6,68
Water flow rate		(1)	l/h	656	626	464	749	720	509	779	732	468	890	835	541	1021	958	566	1088	1000	574
Pressure drop		(1)	kPa	23	22	12	21	20	11	20	17	8	12	11	5	14	13	5	19	17	6
Heating capacity (45°C)		(2)	kW	3,79	3,62	2,68	4,33	4,16	2,94	4,40	4,15	2,67	5,00	4,69	2,46	5,90	5,54	3,27	6,29	5,78	3,32
Water flow rate		(2)	l/h	652	623	461	745	715	506	767	720	460	860	806	418	1015	953	562	1082	994	571
Pressure drop		(2)	kPa	23	22	12	21	20	11	20	17	8	12	10	3	14	13	5	19	17	6
Cooling Performance																					
Total cooling capacity		(3)	kW	3,84	3,68	2,73	4,31	4,15	2,97	4,30	4,00	2,20	4,70	4,41	2,60	5,20	4,80	2,81	6,46	6,00	3,58
Sensible cooling capacity		(3)	kW	2,85	2,73	1,98	3,12	2,98	2,11	3,20	3,00	1,71	3,50	3,30	1,90	3,90	3,60	2,10	4,27	3,94	2,33
Water flow rate		(3)	l/h	660	633	469	741	714	511	739	688	378	818	760	447	894	825	483	1111	1032	616
Pressure drop		(3)	kPa	25	22	13	24	21	12	20	18	6	12	10	4	13	12	20	18	16	12
Fans																					
Centrifugal fans		n°	2						3						3						
Air flow rate		m³/h	630	600	410	630	600	410	799	730	405	799	730	405	799	730	405	799	730	405	
High static pressure		Pa	55	50	23	55	50	23	60	50	15	60	50	15	60	50	15	60	50	15	
Sound level																					
Sound Power (Inlet+Radietor)		(4)	dB(A)	57	56	45	57	56	45	58	55	44	58	55	44	58	55	44	58	55	44
Sound Power (Outlet)			dB(A)	52	52	42	52	52	42	54	51	40	54	51	40	54	51	40	54	51	40
Hydraulic connections																					
Main coil																					
Standard		Ø	3/4"			/			3/4"			/			3/4"			/			
Oversized		Ø	/			3/4"			/			3/4"			/			3/4"			
Electrical data																					
Absorbed power		W	60	50	18	60	50	18	78	61	21	78	61	21	78	61	21	78	61	21	
Power supply		V/ph/Hz	230V~50Hz																		

H velocità massima; M velocità media; L velocità minima

(1) Aria ambiente 20°C b.s.; Acqua (in/out) 70°C/60°C;

(2) Aria ambiente 20°C b.s.; Acqua (in/out) 45°C/40°C (EUROVENT)

(3) Aria ambiente 27°C b.s./19°C b.u.; Acqua (in/out) 7°C/12°C (EUROVENT)

(4) Potenza sonora sulla base di misure effettuate in accordo alla normativa Eurovent 8/2

Pressione sonora (ponderato A) misurato in ambiente con volume V=85 m³, tempo di riverbero t=0,5s fattore di direzionalità Q=2; distanza r=2,5m.

## Technical data (EUROVENT FCP4H) Unit for 4 pipe systems (with main + supplementary coil)

FCZI_P	201					202					301					302					401					402				
Fan speed	H M L					H M L					H M L					H M L					H M L					H M L				
Hating Performance																														
4 pipe systems																														
Heating capacity (65°C)	(1)	kW	1,49	1,42	0,94	2,49	2,34	1,65	2,47	2,34	1,60	4,14	3,89	2,54	2,85	2,69	1,99	4,73	4,42	3,11										
Water flow rate	(1)	l/h	128	122	81	214	201	141	212	201	138	356	334	218	245	231	171	407	380	267										
Pressure drop	(1)	kPa	9	9	4	7	6	3	13	12	6	21	19	9	8	7	4	6	6	3										
Cooling Performance																														
Total cooling capacity	(2)	kW	1,45	1,37	0,80	1,45	1,37	0,80	2,53	2,38	1,40	2,53	2,38	1,40	3,21	2,98	2,03	3,21	2,98	2,03										
Sensible cooling capacity	(2)	kW	1,20	1,13	0,63	1,20	1,13	0,63	1,94	1,82	1,10	1,94	1,82	1,10	2,36	2,18	1,45	2,36	2,18	1,45										
Water flow rate	(2)	l/h	249	236	138	249	236	138	435	409	241	435	409	241	552	512	349	552	512	349										
Pressure drop	(2)	kPa	16	14	5	16	14	5	17	15	7	17	15	7	20	13	9	20	13	9										
Fans																														
Centrifugal fans	n°	1					2					2																		
Air flow rate	m³/h	257	226	148	257	226	148	424	390	225	424	390	225	515	470	300	515	470	300											
High static pressure	Pa	57	50	21	57	50	21	59	50	16	59	50	16	60	50	20	60	50	20											
Sound level																														
Sound Power (Inlet+Radietor)	(3)	dB(A)	59	56	41	59	56	41	53	50	36	53	50	36	55	53	43	55	53	43										
Sound Power (Outlet)		dB(A)	55	52	37	55	52	37	49	47	32	49	47	32	52	49	39	52	49	39										
Hydraulic connections																														
Main coil	Ø	1/2"					3/4"					3/4"																		
Additional coil	Ø	1/2"					1/2"					1/2"					1/2"													
Electrical data																														
Absorbed power	W	31	27	7	31	27	7	40	31	10	40	31	10	48	38	14	48	38	14											
Power supply		230V~50Hz																												

FCZI_P	501			502			701			702			901				
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
Hating Performance																	
4 pipe systems																	
Heating capacity (65°C)	(1)	kW	3,45	3,59	2,62	5,86	5,66	4,25	3,92	3,70	3,17	7,07	6,92	6,43	5,47	5,09	3,17
Water flow rate	(1)	l/h	297	309	225	504	487	365	337	318	273	608	595	553	470	438	273
Pressure drop	(1)	kPa	9	9	6	6	6	4	13	12	4	12	11	10	11	10	4
Cooling Performance																	
Total cooling capacity	(2)	kW	3,84	3,68	2,73	3,84	3,68	2,73	4,30	4,00	2,20	4,30	4,00	2,20	5,24	4,80	2,80
Sensible cooling capacity	(2)	kW	2,85	2,73	1,98	2,85	2,73	1,98	3,20	3,00	1,71	3,20	3,00	1,71	3,90	3,60	2,10
Water flow rate	(2)	l/h	660	633	469	660	633	469	739	688	378	739	688	378	901	825	482
Pressure drop	(2)	kPa	25	23	13	25	23	13	20	18	6	20	18	6	13	12	5
Fans																	
Centrifugal fans	n°	2					3					3					
Air flow rate	m³/h	630	600	410	630	600	410	799	730	405	799	730	405	799	730	405	
High static pressure	Pa	55	50	23	55	50	23	60	50	15	60	50	15	60	50	15	
Sound level																	
Sound Power (Inlet+Radietior)	(3)	dB(A)	57	56	45	57	56	45	58	55	44	58	55	44	58	55	44
Sound Power (Outlet)		dB(A)	52	52	42	52	52	42	54	51	40	54	51	40	54	51	40
Hydraulic connections																	
Main coil	Ø	3/4"					3/4"					3/4"					
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			
Electrical data																	
Absorbed power	W	60	50	18	60	50	18	78	61	21	78	61	21	78	61	21	
Power supply	230V~50Hz																

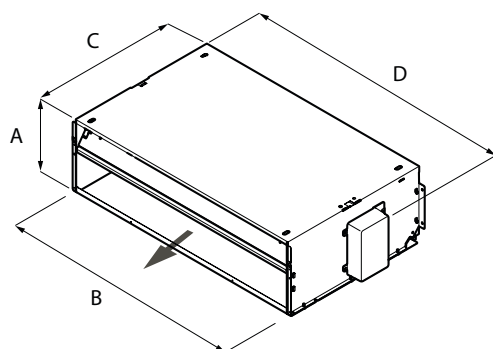
(1) Room air temperature 20°C d.b.; Water (in/out) 65°C/55°C; (EUROVENT)

(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

(3) Sound power level: based on mesurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Dimensions and Weights



FCZI_P			200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	/	950
<b>Dimensions for all versions</b>																										
Height	A	mm	216				216				216				216				216				216			
	B*	mm	522				753				973				973				1122				1122			
Width	D	mm	453				453				453				453				453				558			
	C	mm	562				793				1013				1013				1147				1147			
Weight		kg	12	13	14	14	14	15	16	16	20	21	22	22	23	23	24	24	26	27	28	28	32			

\* maximum dimensions

# Omnia UL P

Fan coils  
Ceiling installations residential applications



Aermec participate in the EUROVENT program: FCH the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Variable Multi Flow®**

**VMF**



## Features

- UL (Universal Line) fan coils for both horizontal and vertical installation
- **Versions:**
  - **UL-P** Without cabinet for ceiling installation
- **Fan cleaning:** Omnia fan coils allow fan blades to be easily cleaned. It is now possible to remove the fan volute (it contains the fan blades) and clean it periodically.
- **Condensate drip tray cleaning:** Thanks to a new drip tray fitting, it is now easier to clean it with Omnia fan coils. This important solution avoids, in the long run, bacteria, germs and mould to grow up, in the drip tray because of the air humidity.
- **Precharged electrostatic filter:** Omnia fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus guaranteeing pure breathable air to the whole family.
- **PLASMACLUSTER ionising filter:** Plasmacluster is capable of reducing the level of pollutants, by decomposing the molecules that form them. Using a series of electric shocks, "Plasmacluster" causes the water molecules present in the air to separate into positive and negative ions. These ions neutralise the gas pollutant molecules, forming products that are normally present in clean air. The result is in the air: you can finally breath clean, odour-free ionised air.
- **Silent operation:** Thanks to the use of special centrifugal fans, Omnia fan coils operation is extremely silent and offers the maximum acoustic comfort.
- 3-speed centrifugal fan
- Very quiet operation
- Slim dimensions
- Water connections reversibility during installation
- Low pressure drop across heat exchanger
- Motors with permanently connected condensers
- Easy installation and maintenance
- Air filter easy to remove and to clean
- Full compliance with safety regulations

## Accessories

- **BC:** Auxiliary condensate drip tray.  
BC 10 for vertical installation  
BC 20 for horizontal installation
- **DSC5:** Condensate drainage device for use when natural run-off is not possible. DSC5 is not compatible BC10 - BC20 accessories.
- **SIT 3-5:** Thermostat interface cards. They allow to set up a fancoils network (max. 10) commanded by a centralised panel (switch or thermostat).  
**SIT3:** commands the three speeds of the fan and must be installed on each fancoil of the network; it receives the commands from the switch or from the SIT5 card.
- **SIT5:** commands the 3 fan speeds and up to two valves (four-pipe systems); it sends the thermostat commands to the fancoils network.
- **SW:** Water probe wich enables automatic season change-over thanks to the specific electronic thermostats.
- **SWA:** External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **VCH:** Kit comprising motorized 3-way valve, unions and copper pipes.
- **VCHD:** Kit comprising motorized 2-way valve, unions and copper pipes.
- **CHU\_L:** Ventilcassaforma, recessed installation template. For further details, refer to the specific data sheet.
- **Control panels and VMF System:** The control panels are described in a separate document.

Omnia UL_P	11	16	26	36
FMT21	•	•	•	•
SWA (1)	•	•	•	•
PX2 o PX2C6 (2)	•	•	•	•
PXAE	•	•	•	•
TPF	•	•	•	•
WMT05	•	•	•	•
WMT10	•	•	•	•
VMF-E4 o E4D	•	•	•	•
VMF-E0 o E1	•	•	•	•
BC10	•	•	•	•
BC20	•	•	•	•
DSC5 (3)	•	•	•	•
SIT3	•	•	•	•
SIT5	•	•	•	•
SW3	•	•	•	•
Ventilcassaforma	CHU12L	CHU17L	CHU27L	CHU37L
VCH	•	•	•	•
VCHD	•	•	•	•

(1)SWA probe for FMT21

(2) PX2C6, PX2 panel in multiple 6-piece pack, for only wall installation

(3) The DSC5 accessory is not compatible BC10 - BC20 accessories.

## Technical data

Omnia UL_P		11			16			26			36		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance													
2 pipe configuration													
Heating capacity (70°C)	(1) kW	2,01	1,46	1,06	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1) l/h	176	128	93	255	186	135	405	336	254	521	427	310
Pressure drops	(1) kPa	2	1	1	4	2	1	5	8	11	7	13	18
Heating capacity (50°C)	(2) kW	1,15	0,87	0,65	1,70	1,25	0,93	2,75	2,24	1,67	3,54	2,86	2,08
Water flow rate	(2) l/h	145	117	94	206	153	122	349	289	220	487	394	286
Pressure drops	(2) kPa	2	1	1	4	2	2	10	7	4	16	11	6
Heating capacity (45°C)	(3) kW	1,00	0,73	0,53	1,45	1,05	0,77	2,30	1,91	1,44	2,96	2,42	1,76
Water flow rate	(3) l/h	174	126	92	251	183	133	399	331	249	513	420	305
Pressure drops	(3) kPa	2	1	0,5	4	2	1	5	8	11	7	12	18
Cooling Performance													
Total cooling capacity	(4) kW	0,84	0,68	0,54	1,20	0,89	0,71	2,03	1,68	1,28	2,83	2,29	1,66
Sensible cooling capacity	(4) kW	0,70	0,53	0,39	0,99	0,71	0,54	1,64	1,33	0,99	2,04	1,62	1,16
Water flow rate	(4) l/h	145	117	94	206	153	122	349	289	220	487	394	286
Pressure drops	(4) kPa	2	1	1	5	3	2	11	8	5	19	13	7
Water content	l	0,4			0,5			0,8			1,1		
Fans													
Fan	type/n°	centrifugal/1						centrifugal/2					
Air flow rate	m³/h	180	120	80	240	160	110	350	270	190	460	350	240
Sound data													
Sound power level	(5) dB(A)	46	37	31	48	43	34	48	43	35	50	43	34
Sound pressure level	dB(A)	38	29	23	40	35	26	40	35	27	40	33	26
Diameter connections													
Standard coil	Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features													
Absorbed power	W	18	12	8	32	25	23	35	27	24	42	35	30
Max. input current	A	0,09			0,15			0,18			0,22		
Electrical wiring		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply	V/ph/Hz	230V~50Hz											
Energy Efficiency classification (EUROVENT)													
FCEER		D			E			D			D		
FCCOP	(6)	D			D			D			D		

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode (EUROVENT)

(3) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

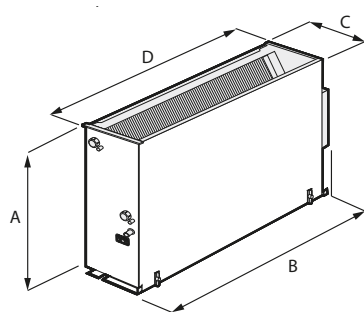
(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

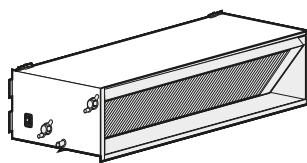
(6) FCCOP Related to: Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode

Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

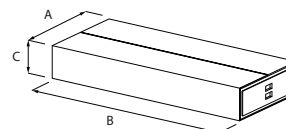
## Dimensions (mm)



Vertical installation



horizontal installation



PACKAGING design example

OMNIA ULI_P / PAF			11	16	26	36
Height	A	mm	465	465	465	465
Width	B*/D	mm	420.5/360.5	530.5/470.5	761.5/701.5	981.5/921.5
Depth	C	mm	171	171	171	171
Weight <sup>1</sup>		kg	10.2	11.6	14.9	18.3
<b>PACKAGING design example</b>						
A/B/C		mm	590/275/710	590/275/820	590/275/1050	590/275/1270

\*overall dimensions

<sup>1</sup> Weight standard unit without accessoires

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# Omnia ULI P

Fan coils with Inverter Brushless motor (EC)  
Wall/ceiling installation for residential use



**Aermec**  
is participating in the EUROVENT Program : FCH  
The related products can be found at the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



## Features

Recessed fan coils with inverter technology for heating, cooling, and dehumidifying. Equipped with state of the art ventilation unit with continuous modulation of the air flow rate, which allows for precise adaptation of the actual indoor ambient requirements without temperature oscillations, for increased comfort, also in terms of noise, and electric saving. It can be installed on 2-pipe systems and combined with any heat generator also at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and possibility of horizontal or vertical installation.

- **Versions without thermostat on board:**  
**ULI-P:** wall/ceiling mounted without cabinet.  
**ULI-PAF:** Wall/ceiling mounted without cabinet with front intake

- **Cleaning the fan:** Omnia fan coils allow you to clean the fan more easily. Now the fan screw feeder (blade casing) can be opened to allow you to clean the blades periodically.
- **Cleaning the condensate drip tray:** The new condensate drip tray of the Omnia fan coils fixing system allows you to clean it more easily. This important solution prevents, in the long term, bacteria, germs, and mould from forming in the drip tray, due to the presence of humidity condensate in the air.
- **Electro-statically pre-charged filter:** Omnia fan coils are equipped, as per standard, with electro-statically pre-charged filters. These filters absorb and hold airborne dust due to their special construction. This ideal system guarantees healthy air for the entire family.
- **Silent operation:** The special centrifugal coils with Brushless motor with 0-100% continuous speed vari-

ation provide Omnia fan coils with extremely silent ventilation and guarantee acoustic comfort thanks to the absence of noise peaks.

- Reversibility of hydraulic connections during installation
- Low pressure drop in heat exchange coils
- Easy installation and maintenance.
- Air filter with easy extraction and cleaning.

## Accessories

### Thermostat

- **WMT21:** Electronic thermostat for wall/ceiling installation
- **SWAI:** Water temperature probe for WMT21 panels (2 m cable length)

### VMF system

- **VMF-E18:** Thermostat for serial communication
- **VMF-E4:** The wall user interface allows you to control the functions via capacitive touch keyboard.
- **VMF-E5:** The wall recessed panel allows you to control the functions of a complete hydronic system via capacitive touch keyboard.

**For further information on the thermostats and VMF system, refer to the documentation available at [www.aermec.com](http://www.aermec.com)**

- **BC:** Auxiliary condensate drip tray. BC10 for vertical installation. BC20 for horizontal installation.
- **DSC5:** Condensate draining device when level differences must be exceeded.
- **VCH:** Kit composed of 3-way motorised valve and copper pipes and connections.
- **VCHD:** Kit composed of 2-way motorised valve and copper pipes and connections.

- **CHU\_L:** Ventilcassaforma, recessed installation template. For further details, refer to the specific data sheet.

Omnia ULI_P/PAF	vers.	16	26	36
<b>Thermostat</b>				
WMT21		•	•	•
SWAI		•	•	•
<b>VMF system</b>				
VMF-E4		•	•	•
VMF-E5		•	•	•
AMP10		•	•	•

(1) DSC5 is not compatible with trays BC10 - BC20

Omnia ULI_P/PAF	vers.	16	26	36
<b>BC10</b>				
BC20		•	•	•
DSC5	(1)	•	•	•
VCH		•	•	•
VCHD		•	•	•
Ventilcassaforma		CHU17L	CHU27L	CHU37L
ZU		•	•	•

## Technical data

Omnia ULI		16			26			36		
Fan speed		H	M	L	H	M	L	H	M	L
<b>Heating Performance</b>										
<b>2 pipe configuration</b>										
Heating capacity (70°C)	(1) kW	2,91	2,12	1,54	4,62	3,83	2,89	5,94	4,87	3,53
Water flow rate	(1) l/h	255	186	135	405	336	254	521	427	310
Pressure drops	(1) kPa	4	2	1	5	8	11	7	13	18
Heating capacity (45°C)	(2) kW	1,45	1,05	0,77	2,30	1,91	1,44	2,96	2,42	1,76
Water flow rate	(2) l/h	251	183	133	399	331	249	513	420	305
Pressure drops	(2) kPa	4	2	1	5	8	11	7	12	18
<b>Cooling Performance</b>										
Total cooling capacity	(3) kW	1,20	0,89	0,71	2,03	1,68	1,28	2,83	2,29	1,66
Sensible cooling capacity	(3) kW	0,99	0,71	0,54	1,64	1,33	0,99	2,04	1,62	1,16
Water flow rate	(3) l/h	206	153	122	349	289	220	487	394	286
Pressure drops	(3) kPa	5	3	2	11	8	5	19	13	7
Water content	l		0,5			0,8			1,1	
<b>Fans</b>										
Fan - Centrifugal	n°		1				2			
Air flow rate	m³/h	240	160	110	350	270	190	460	350	240
<b>Sound data</b>										
Sound power level	(4) dB(A)	48	43	34	48	43	35	50	43	34
Sound pressure level	dB(A)	40	35	26	40	35	27	40	33	26
<b>Diameter connections</b>										
Standard coil	Ø		1/2"			1/2"			1/2"	
<b>Electrical Features</b>										
Absorbed power	W	12	8	6	15	10	7	18	12	8
Max. input current	A		0,16			0,16			0,25	
Signal 0-10V	%	83	56	38	90	70	49	90	70	48
Power supply						230V~50Hz				
<b>Energy Efficiency classification (EUROVENT)</b>										
FCEER			D			D			D	
FCCOP	(6)		D			D			D	

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

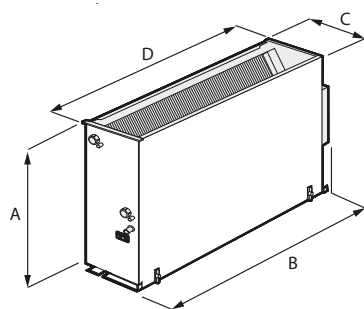
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

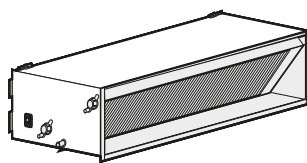
(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

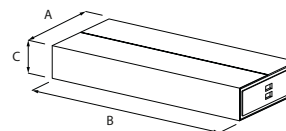
## Dimensions (mm)



Vertical installation



horizontal installation



PACKAGING design example

OMNIA ULI_P / PAF			16	26	36
Height	A	mm	465	465	465
Width	B*/D	mm	530.5/470.5	761.5/701.5	981.5/921.5
Depth	C	mm	171	171	171
Weight <sup>1</sup>		kg	11.6	14.9	18.3
<b>PACKAGING design example</b>					
A/B/C		mm	590/275/820	590/275/1050	590/275/1270

\*overall dimensions

<sup>1</sup> Weight standard unit without accessoires

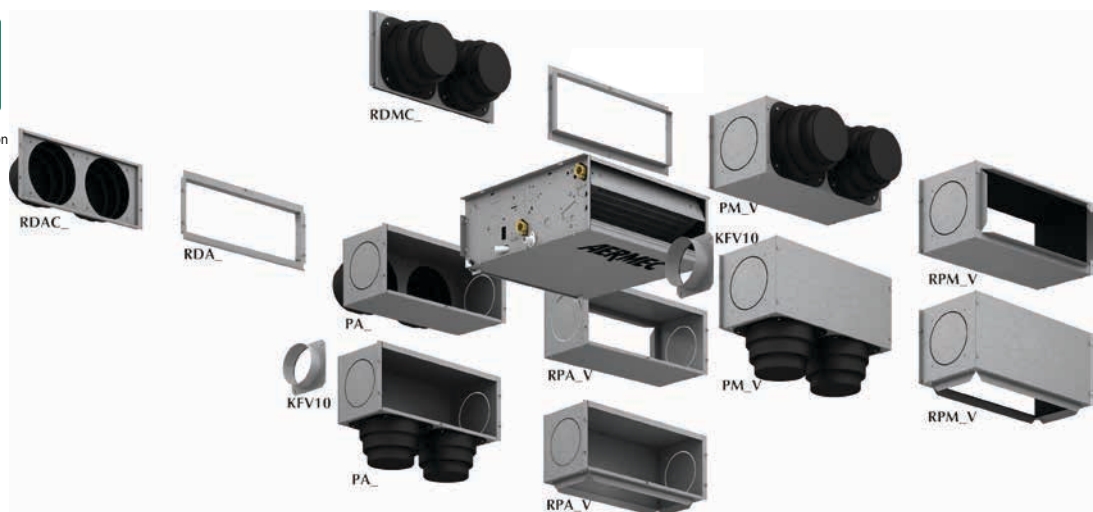
All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com





Aermec participates in the EUROVENT Certification Programme FCP. The products of interest can be found on the site: [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **1 ROW HEATING ONLY COIL (ACCESSORY BV)**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **ACCESSIBLE FAN ASSEMBLY**
- **AIR FILTER CLASS G3**
- **REVERSIBLE COIL**

### Unit selection

By choosing the appropriate options it is possible to select the model to suit the specific system requirements.

#### Configuration fields:

1 2 3	4	5	6
Code	Size	Main Coil	0

#### Example:

1 2 3	4	5	6
VED	0	3	0

(VED030 = unit Size 0, with 3 Row Main Coil)

### Characteristics

- Ducted air conditioning terminal unit
- Horizontal and vertical installation
- Internal installation
- Available in 8 sizes
- 3 or 4 row coils for 2-pipe systems
- 3 row main coil and heating only coil accessory for 4-pipe systems
- Reversing of hydraulic connections side on site
- Low pressure drop heat exchanger
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- 6 and 7 speed fan assembly (3 selectable)
- Large range of available static pressure
- Centrifugal fans in anti-static plastic material. Their characteristics permit energy savings compared to conventional fans
- Fans with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Compatible with many accessories already available on the FCX range
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in Class 1 fire retardant material
- Protective rating IP20
- Fan housing in plastic material removable for easy and effective cleaning
- Ease of installation and maintenance
- Full compliance with safety standards.



## Accessories

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

#### Probes and accessory for control panels

- **SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- **SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).  
SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.  
SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

#### VMF system

- **VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe, 2 pipe + Plasmacluster, 2 pipe + UV lamps, 2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master +

maximum 5 slaves). The thermostat is fuse protected.

- **VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E1:** Thermostat for serial communication.
- **VMF-SW:** Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

#### Hot water coil

- **BV:** Single row hot water heat exchanger.

#### Valve kit

- **VCF\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- **VCF:** kit containing a motorised 3-way valve with insulating shell plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- **VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.  
**The VJP is controlled by on-off logic** with compatible control panels (accessories)

**The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec

**The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

#### Accessory for Installation

- **AMP:** kit for the wall mounting installation.
- **BC:** Auxiliary condensate drip tray.
- **DSC4:** Condensate drainage device for use when natural run-off is not possible.

#### Ducting Accessories:

- **RDA\_V:** Straight intake connection with rectangular flange.
- **RDAC\_V:** Straight intake connection with circular flanges.
- **RPA\_V:** Intake plenum with rectangular flange.
- **RDMC\_V:** Straight discharge with circular flanges. Internally insulated.
- **PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.
- **RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.
- **PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10:** Circular flanges kit for intake/discharge plenum.

#### Grid

- **GA:** Intake grid with fixed louvers.
- **GAF:** Intake grid with fixed louvers with filter.
- **GM:** Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VED	030	040	130	140	230	240	330	340
Probes and accessories for control panels								
KTLP	•	•	•	•	•	•	•	•
PX-PX2-PX2C6 (1)	•	•	•	•	•	•	•	•
PXAE	•	•	•	•	•	•	•	•
PXAR	•	•	•	•	•	•	•	•
TPF	•	•	•	•	•	•	•	•
WMT05-06-10	•	•	•	•	•	•	•	•
FMT10	•	•	•	•	•	•	•	•
FMT21	•	•	•	•	•	•	•	•
SWA	In combination with FMT21							
SW3	In combination with PXAE or PXAR							
SIT3	In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05*-06-10							
SIT5	In combination with FMT21 or PXAE or PXAR							
VMF System								
VMF-E0	•	•	•	•	•	•	•	•
VMF-E1	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
Additional coil (heating only)								
BV030	•							
BV130			•					
BV230					•			
BV162							•	
Water valves								
Valve Kit for 4 pipe systems with Main coil								
VCF3X4L-R	•	•	•	•	•	•	•	•
3 way valve kit								
VCF43/4324 (2)	•	•	•	•	•	•	•	•
VCF43S/4324S (2)				•		•		
2 way valve kit								
VCFD3/324 (2)	•	•	•	•	•	•	•	•
3 way valve kit for heating coil only								
VCF45/4524	•		•		•		•	

For more details on the control panels and VMF system refer to the dedicated sheet.

\* WMT05 is not available with additional coil (heating only) BV

(1) Only for wall installation; PX2C6 panel PX2 in multiple 6 pz.)

(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

## Accessories

VED		030	040	130	140	230	240	330	340
<b>2 way valve kit for heating coil only</b>									
VCFD4/424		•		•		•		•	
<b>Combined adjustment and balancing valve independent of pressure*</b>									
VJP060/060M	(2)	•	•	•	•				
VJP090/090M	(2)					•	•	•	•
VJP150/150M	(2)							•	•
<b>Accessories for installation</b>									
AMP		•	•	•	•	•	•	•	•
DSC4	(3)	•	•	•	•	•	•	•	•
ZX7		•	•	•	•	•	•		
ZX8								•	•
<b>Auxiliary condensate drip tray</b>									
BC4	(4)	•	•	•	•	•	•	•	•
BC6		•	•	•	•	•	•	•	•
BC9		•	•	•	•	•	•	•	•
<b>Grille</b>									
GA22		•	•						
GA32				•	•				
GA42						•	•		
GA62								•	•
GAF22		•	•						
GAF32				•	•				
GAF42						•	•		
GAF62								•	•
GM22		•	•						
GM32				•	•				
GM42						•	•		
GM62								•	•
SE20X	(5)	•	•						
SE30X	(5)			•	•				
SE40X	(5)					•	•		
SE80X	(5)							•	•
<b>Plenum for duct installation</b>									
MZC220		•	•						
MZC320				•	•				
MZC530						•	•		
MZC830								•	•
RDA000V		•	•						
RDA100V				•	•				
RDA200V						•	•		
RDA300V								•	•
RPA000V	(6)	•	•						
RPA100V	(6)			•	•				
RPA200V	(6)					•	•		
RPA300V	(6)							•	•
RDAC000V		•	•						
RDAC100V				•	•				
RDAC200V						•	•		
RDAC300V								•	•
PA000V	(6)	•	•						
PA100V	(6)			•	•				
PA200V	(6)					•	•		
PA300V	(6)							•	•
PM000V	(6)	•	•						
PM100V	(6)			•	•				
PM200V	(6)					•	•		
PM300V	(6)							•	•
RPM000V	(6)	•	•						
RPM100V	(6)			•	•				
RPM200V	(6)					•	•		
RPM300V	(6)							•	•
RDMC000V		•	•						
RDMC100V				•	•				
RDMC200V						•	•		
RDMC300V								•	•
KFV10		•	•	•	•	•	•	•	•

\*VJP / VJP\_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M-VJP090M are 24V

(3) DSC4 It's not available with AMP - BC -VMF system

(4) BC4 is not available with valve VCZ-VCZD / VCF-VCFD

(5) The accessory SE require pairing with ZX

(6) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

## Technical data

VED		30			40			130			140			230			240			330			340			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate	(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	729
Pressure drops	(1)	kPa	9	7	3	12	10	4	26	22	13	18	16	9	37	30	27	32	26	18	16	13	9	32	28	22
Heating capacity (45°C)	(2)	kW	1,83	1,68	0,91	1,95	1,78	1,18	3,13	2,90	2,19	3,27	3,03	2,25	3,56	3,23	2,66	3,93	3,55	2,89	5,23	4,65	3,89	5,45	4,98	4,14
Water flow rate	(2)	l/h	318	291	157	338	308	204	543	504	380	568	526	390	618	561	462	683	616	501	907	807	674	945	865	718
Pressure drops	(2)	kPa	9	7	3	12	10	4	25	21	13	17	16	9	36	29	26	31	25	17	16	13	9	31	27	21
Cooling Performance																										
Total cooling capacity	(3)	kW	1,62	1,45	0,99	1,90	1,72	1,12	3,00	2,79	2,08	3,29	3,05	2,27	3,42	3,13	2,59	4,02	3,63	2,90	5,00	4,42	3,68	5,36	4,79	3,98
Sensible cooling capacity	(3)	kW	1,24	1,12	0,75	1,35	1,23	0,81	2,09	1,94	1,44	2,37	2,19	1,61	2,70	2,44	2,00	3,02	2,72	2,20	3,74	3,34	2,80	3,99	3,57	2,95
Water flow rate	(3)	l/h	279	250	170	327	296	193	515	480	358	566	525	390	588	538	445	691	624	499	860	760	633	922	824	685
Pressure drops	(3)	kPa	9	7	3	14	12	5	31	27	15	23	20	11	44	36	25	37	31	16	18	14	10	26	21	16
Water content	l		/			/			/			/			/			/			/			/		
Fans																										
Fan - Centrifugal	n°		1			1			2			2			2			2			3			3		
Air flow rate	m³/h		285	256	161	277	249	160	434	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563
High static pressure	Pa		61	50	21	61	50	21	60	50	26	60	50	26,4	64	50	32	63	50	32	66	50	33	64	50	34
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
Diameter connections																										
Standard coil	Ø		3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø		/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power	W		58	38	23	56	38	23	75	52	34	75	52	34	92	74	49	92	64	43	104	74	59	103	81	58
Max. input current	A		0,37			0,37			0,41			0,41			0,58			0,58			0,66			0,66		
Electrical wiring			V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V3	V1	V6	V3	V1	V7	V3	V1	V7	V3	V1
Power supply			230V~50Hz																							

VED		30+BV030			130+BV130			230+BV230			330+BV162			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance														
4 pipe configuration														
Heating capacity (65°C)	(4)	kW	1,98	1,86	1,42	3,38	3,21	2,63	4,01	3,73	3,28	5,27	4,91	4,37
Water flow rate	(4)	l/h	174	163	125	296	281	230	351	326	287	461	429	382
Pressure drops	(4)	kPa	7	6	4	23	21	15	13	11	9	21	18	15
Cooling Performance														
Total cooling capacity	(3)	kW	1,59	1,42	0,98	2,93	2,73	2,03	3,38	3,08	2,56	4,91	4,36	3,65
Sensible cooling capacity	(3)	kW	1,22	1,09	0,73	2,17	1,90	1,40	2,67	2,39	1,98	3,68	3,30	2,78
Water flow rate	(3)	l/h	274	244	170	504	469	349	582	530	440	845	751	629
Pressure drops	(3)	kPa	8	6	4	31	27	15	44	37	26	18	14	10
Fan														
Fan - Centrifugal	n°	1			2			2			3			
Air flow rate	m³/h	280	250	160	423	388	280	582	513	412	790	695	568	
High static pressure	Pa	61	50	21	60	50	26	64	50	32	66	50	33	
Sound data														
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	55	53	47	57	54	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	42	52	49	44	54	51	45
Diameter connections														
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"			
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			
Electrical Features														
Absorbed power	W	58	38	23	75	52	34	92	74	49	104	74	59	
Max. input current	A	0,37			0,41			0,58			0,66			
Electrical wiring		V6	V4	V1	V6	V4	V1	V6	V3	V1	V7	V3	V1	
Power supply		230V~50Hz												

VED	from VED030 to VED240						from VED330 to VED340						
Speed - fan	V6	V5	V4	V3	V2	V1	V7	V6	V5	V4	V3	V2	V1
motor connected	L1	L2	L3	L4	L5	L6	L1	L2	L3	L4	L5	L6	L7

**Note: The speed of associates may differ from the standard factory configuration.**

**for more information refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

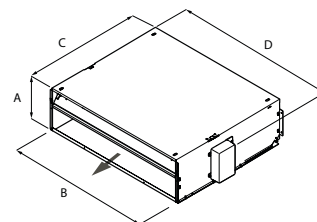
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

## Dimensions (mm)

VED		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148
Net weight	Kg	22	24	25	33	33	34	35	34



Cod.: SVED0UY.05 / 1611

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com</](http://www.aermec.com)

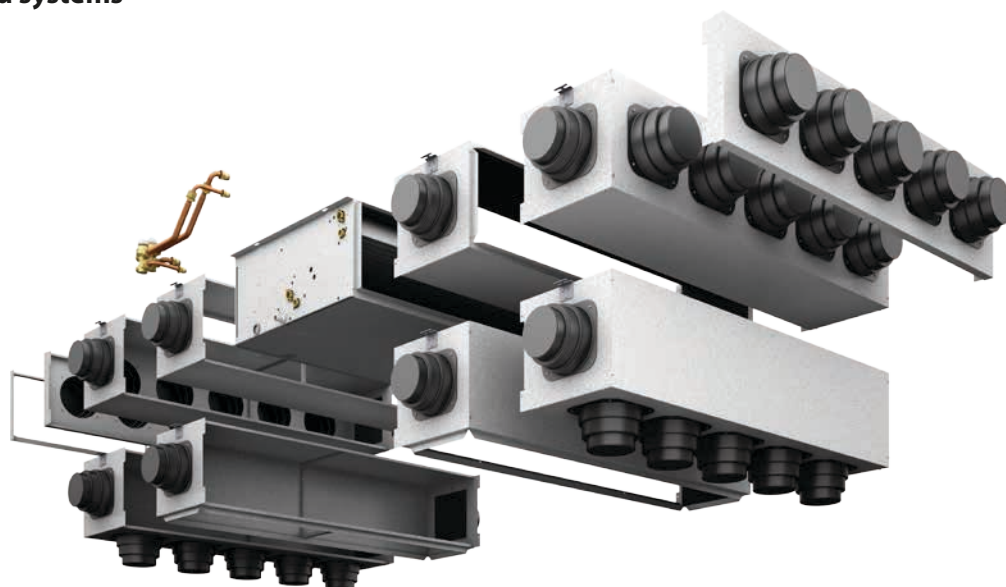
## VED Air handling terminal with cooling capacities from 8 to 18 kW For ducted systems



AERMEC participates in the EUROVENT programme for: FCP  
Check ongoing validity of certificate online: [www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable MultiFlow®

VMF



- HORIZONTAL AND VERTICAL INSTALLATION
- VERSIONS FOR 2/4 PIPE SYSTEMS
- HEAT EXCHANGER ONLY WITH 1 OR 2 ROWS
- WIDE RANGE OF USEFUL STATIC PRESSURE
- 5 SPEED VENTILATION UNIT
- INSPECTIONABLE FAN UNIT
- CLASS G3 AIR FILTER
- COIL REVERSIBILITY

### Choosing the unit

By appropriately combining the options available, it is possible to select the model that satisfies the specific system requirements.

#### Fields configurator:

1 2 3   Code	4   Size	5   Main coil n°. rows	6   Heating only coil n°. rows
1 2 3   VED	4   5	5   3	6   2

(VED532 = unit size 5, with Main Coil 3 Rows and Heating Coil 2 Rows)

#### Features

- Air handling terminal for ducted systems
- EUROVENT FCP Certification Program
- Horizontal and vertical installation
- Indoor installation
- Available in 4 sizes and 4 configurations
- Versions for 2 pipe systems with 3 or 4 row coil
- Versions for systems with 4 pipes with main coil with 3 or 4 rows and heating only coil with 1 or 2 rows
- Reversibility of the hydraulic connection in the installation phase
- Low pressure drop in the heat exchange coils
- 3-way valves accessories
- 2-way valves accessories for systems with variable water flow rate
- 5 speed fan unit (3 selectable)
- Wide range of useful static pressure
- Centrifugal fans in antistatic plastic. Due to their features, they allow to reduce the energy consumption with respect to normal fans
- Fans with wing-shaped profile studied to obtain high flow rate and static pressure performance and low noise emission at the same time
- Compatible with the VMF system
- Wide range of controls
- Wide range of accessories to satisfy all system requirements
- Rectangular flow flange already integrated into the framework
- Class G3 air filter with easy extraction and cleaning
- Internal insulation in Class 1 fire resistance
- IP20 protection rating
- Plastic augers, extractable for easy and efficient cleaning
- Easy installation and maintenance
- Full respect of the accident-prevention standards

## Accessories

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

#### Probes and accessory for control panels

- SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- SIT 3 - 5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

#### VMF system

- VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1

master + maximum 5 slaves). The thermostat is fuse protected.

- VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- VMF-E1:** Thermostat for serial communication.
- VMF-SW:** Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.
- VMF-SIT 3:** Thermostat Interface Board

#### Valve kit

- VCF4\_C:** Kit made up from motorised 3-way valves with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
- VCF4\_H:** Kit made up from motorised 3-way valves, fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
- VCF25C:** Kit made up from motorised 2-way valves, with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- VCF25H:** Kit made up from motorised 2-way valves, with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
- VJP/VJP\_M:** Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

The VJP is controlled by on-off logic with compatible control panels (accessories)

The VJP\_M is controlled by modulating logic with panels not supplied by Aermec

The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.

- VCT 2-way or 3-way valve** The VCT valves do not have fittings and pipes for water connections.

These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-actuated via servo commands. These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.

#### Ducting Accessories:

- MZC:** Plenum with motor-driven dampers
- RDA\_V:** Straight intake connection with rectangular flange.
- RDAC\_V:** Straight intake connection with circular flanges.
- RPA\_V:** Intake plenum with rectangular flange.
- RDMC\_V:** Straight discharge with circular flanges. Internally insulated.
- PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.
- RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.
- PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- KFV:** Circular flanges kit for intake/discharge plenum.

For more details on the control panels and VMF system refer to the dedicated sheet

VED	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
Probes and accessories for control panels																
PXAE	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WMT05	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*
WMT06	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
WMT10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
SW3	In combination with PXAE or PXAR															
SIT3 (1)	In combination with PXAE or WMT05-06-10															
SIT5 (2)	In combination with PXAE															
VMF System																
VMF-E0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E4	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-E5	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SW1	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
VMF-SIT3 (3)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Water valves																
3 way valve kit																
VCF45C	*	*	*	*	*	*	*	*	*							
VCF47C									*	*	*	*	*	*	*	*
3 way valve kit for heating coil only																
VCF45H		*		*		*		*								
VCF47H									*	*	*	*	*	*	*	*
2 way valve kit																
VCF25C	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
2 way valve kit for heating coil only																
VCF25H		*		*		*		*		*		*		*		*
Combined adjustment and balancing valve independent of pressure																
VJP150/150M (4)/(5)	*	*	*	*	*	*	*	*	*							
VJP270M (4)/(5)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Kit valvola a due o tre vie																
VCT (2 way) (5)	VCT102		VCT102		VCT102		VCT102		VCT202		VCT202		VCT202		VCT202	
VCT (3 way) (5)	VCT103		VCT103		VCT103		VCT103		VCT203		VCT203		VCT202		VCT403	
Plenum for duct installation																
MZC5040	*	*	*	*	*	*	*	*								
MZC7050	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
RDA 450 V	*	*	*	*	*	*	*	*								
RDA 670 V									*	*	*	*	*	*	*	*
RPA 450 V	*	*	*	*	*	*	*	*								
RPA 670 V									*	*	*	*	*	*	*	*
PA 450 V	*	*	*	*	*	*	*	*								
PA 670 V									*	*	*	*	*	*	*	*
RPM 450 V	*	*	*	*	*	*	*	*								
RPM 670 V									*	*	*	*	*	*	*	*
PM 450 V	*	*	*	*	*	*	*	*								
PM 670 V									*	*	*	*	*	*	*	*
KEV	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) SIT3 Mandatory accessory on the VED units coupled to thermostats different to the VMF System

(2) SIT5 Allows to realise a network of VED units (max 3) controlled by a centralised PXAE panel

(3) VMF-SIT3 Mandatory accessory for coupling with VMF-E0 or VMF-E1

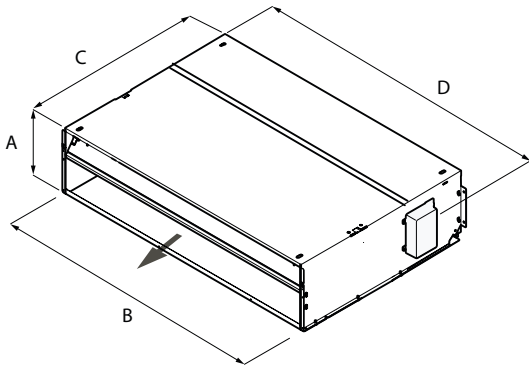
(4) VJP150M-VJP270M are 24Volt

(5) The compatibility of the valves in the hot side of the system 4 tubes, check with the scope of the project water

VED	432					441			532			541			632			641			732			741		
Fan speed	H M L					H M L			H M L			H M L			H M L			H M L			H M L					
Heating Performance																										
4 pipe configuration																										
Heating capacity (65°C)	(4)	kW	10,8	9,58	7,40	7,29	6,68	5,53	12,10	11,48	9,58	7,91	7,61	6,68	18,33	15,84	13,10	12,28	11,05	9,62	1,98	1,76	1,49	12,96	11,88	10,57
Water flow rate	(4)	l/h	945	838	647	638	585	484	1058	1004	838	692	666	584	1603	1386	1146	1075	967	842	1733	1542	1308	1133	1040	925
Pressure drops	(4)	kPa	14	12	7	23	19	14	18	16	11	26	24	19	23	18	13	23	19	15	26	21	16	25	21	17
Cooling Performance																										
Total cooling capacity	(3)	kW	6,95	6,15	4,68	8,01	7,06	5,35	7,76	7,39	6,16	8,97	8,54	7,43	12,53	10,70	8,89	15,07	12,76	10,43	13,85	12,20	10,40	16,08	14,23	11,96
Sensible cooling capacity	(3)	kW	5,36	4,71	3,54	5,73	5,04	3,78	6,02	5,71	4,72	6,45	6,13	5,04	10,30	8,75	7,22	10,58	8,91	7,24	11,44	9,99	8,48	11,32	9,97	8,34
Water flow rate	(3)	l/h	1195	1058	805	1378	1214	918	1335	1271	1060	1543	1469	1278	2155	1840	1529	2592	2195	1794	2382	2098	1789	2766	2448	2057
Pressure drops	(3)	kPa	17	13	8	22	18	11	21	19	12	28	25	19	48	36	26	41	30	21	58	46	35	45	37	27
Water content std. coil		l	2,82			3,76			2,82			3,76			4,38			5,84			4,38			5,84		
Water content additional coil		l	1,88			0,94			1,88			0,94			2,92			1,46			2,92			1,46		
Fan																										
Fan - Centrifugal	n°	2				2			2			2			3			3			3			3		
Air flow rate	m³/h	1250	1060	750	1250	1060	750	1460	1360	1060	1460	1360	1060	2110	1730	1340	2110	1730	1340	2350	2000	1600	2350	2000	1600	
High static pressure	Pa	70	50	25	70	50	25	56	50	32	56	50	32	75	50	30	75	50	30	69	50	32	69	50	32	
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	61	57	51	61	57	51	62	59	53	62	59	53	68	64	59	68	64	62	68	66	62	68	66	62
Sound power level (outlet)		dB(A)	57	53	47	57	53	47	58	55	49	58	55	49	64	60	55	64	60	57	64	62	58	64	62	58
Diameter connections																										
Standard coil	Ø	3/4"				3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø	1/2"				1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"		
Electrical Features																										
Absorbed power	W	215	175	130	215	175	130	266	229	170	266	229	170	340	264	223	340	264	223	372	288	227	372	288	227	
Max. input current	A	1,4			1,4			1,4			1,4			2,1			2,1			2,1			2,1			
Electrical wiring		V5	V3	V1	V5	V3	V1	V5	V3	V2	V5	V4	V2	V5	V3	V1	V5	V3	V1	V5	V3	V1	V5	V3	V1	
Power supply	V/ph/Hz	230V~50Hz																								

Note: The speed of associates may differ from the standard factory configuration.  
for more information refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

- (1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
- (2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)
- (3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
- (4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)
- (5) Sound power level on the basis of measurements made in compliance with EN 12350.



VED		430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
A	mm	300	300	300	300	300	300	300	300	351	351	351	351	351	351	351	351
B	mm	1133	1133	1133	1133	1133	1133	1133	1133	1533	1533	1533	1533	1533	1533	1533	1533
C	mm	737	737	737	737	737	737	737	737	789	789	789	789	789	789	789	789
D	mm	1158	1158	1158	1158	1158	1158	1158	1158	1558	1558	1558	1558	1558	1558	1558	1558
Weight	Kg	41	46	43	46	42	47	47	47	57	57	60	60	58	64	61	64

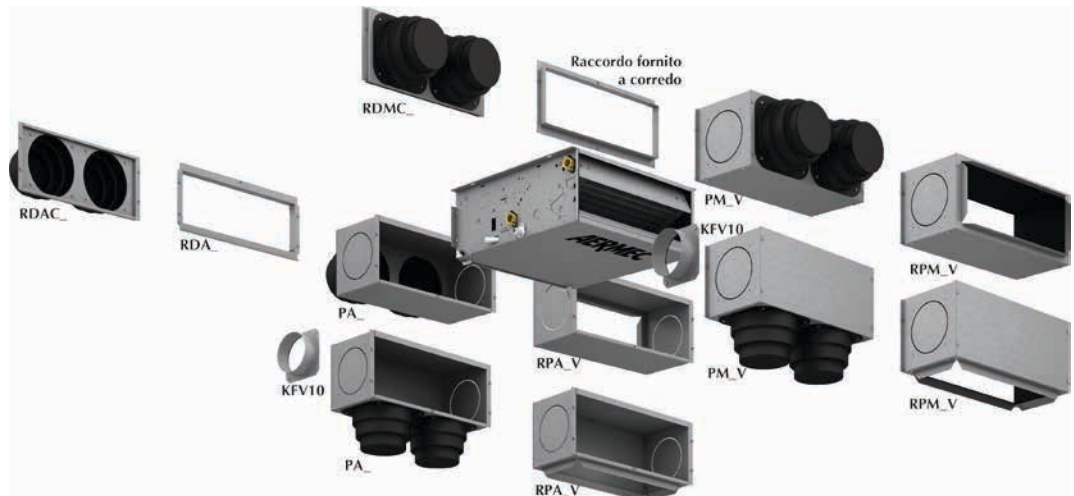




**AERMEC**  
participates in the EUROVENT  
programme for: FCP  
Check ongoing validity of certificate  
online: [www.eurovent-certification.com](http://www.eurovent-certification.com)



*Variable MultiFlow*  
**VMF**



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **1 ROW HEATING ONLY COIL (ACCESSORY BV)**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **CENTRIFUGAL FANS INVERTER**
- **ACCESSIBLE FAN ASSEMBLY**
- **AIR FILTER CLASS G3**
- **REVERSIBLE COIL**

### Unit selection

By choosing the appropriate options it is possible to select the model to suit the specific system requirements.

#### Configuration fields:

1 2 3	4	5	6	7
Code	Size	Main Coil	Main coil only hot	Inverter motor
<b>Example:</b>				
1 2 3	4	5	6	7
VED	0	3	0	1

### Characteristics

- Ducted air conditioning terminal unit
- Internal installation
- 3 or 4 row coils for 2-pipe systems
- 3 row main coil and heating only coil accessory for 4-pipe systems
- Reversing of hydraulic connections side on site
- Low pressure drop heat exchanger
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Centrifugal fans with motor inverter
- Large range of available static pressure
- Centrifugal fans in anti-static plastic material. Their characteristics permit energy savings compared to conventional fans
- Fans with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in Class 1 fire retardant material
- Protective rating IP20
- Fan housing in plastic material removable for easy and effective cleaning
- Ease of installation and maintenance
- Full compliance with safety standards.



## Accessories

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

#### Probes and accessories for control panels

- **WMT21:** Electronic thermostat with LCD display (wall installation).
- **SWAI:** Water temperature probe for WMT21 control panels. Cable length L=2m.

#### VMF system

- **VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18:** Thermostat for serial communication
- **VMF-SW:** water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

#### Hot water coil

- **BV:** Single row hot water heat exchanger.

#### Valve kit

- **VCF\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actu-

tors, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.

- **VCF4\_C: Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
  - **VCF4\_H: Kit made up from motorised 3-way valves,** fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
  - **VCF25C: Kit made up from motorised 2-way valves,** with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
  - **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
  - **VJP/VJP\_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
- The VJP is controlled by on-off logic** with compatible control panels (accessories)
- The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec
- The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

#### Accessory for Installation

- **AMP:** kit for the wall mounting installation.

- **BC:** Auxiliary condensate drip tray.
- **DSC4:** Condensate drainage device for use when natural run-off is not possible.

#### Ducting Accessories:

- **MZC:** Plenum with motor-driven dampers
- **RDA\_V:** Straight intake connection with rectangular flange.
- **RDAC\_V:** Straight intake connection with circular flanges.
- **RPA\_V:** Intake plenum with rectangular flange.
- **RDMC\_V:** Straight discharge with circular flanges. Internally insulated.
- **PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.
- **RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.
- **PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10:** Circular flanges kit for intake/discharge plenum.

#### Grid

- **GA:** Intake grid with fixed louvers.
- **GAF:** Intake grid with fixed louvers with filter.
- **GM:** Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VED_I	030	040	130	140	230	240	330	340
Probes and accessories for control panels								
WMT21	•	•	•	•	•	•	•	•
SWAI	In combination with WMT21							
VMF System								
VMF-E18	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
Additional coil (heating only)								
BV030	•							
BV130			•					
BV230					•			
BV162							•	
Water valves								
Valve Kit for 4 pipe systems with Main coil								
VCF3X4L-R	•	•	•	•	•	•	•	•
3 way valve kit								
VCF43/4324 (1)	•	•	•	•	•	•	•	•
2 way valve kit								
VCFD3/324 (1)	•	•	•	•	•	•	•	•
3 way valve kit for heating coil only								
VCF45/4524	•		•		•		•	
2 way valve kit for heating coil only								
VCFD4/424	•		•		•		•	
Combined adjustment and balancing valve independent of pressure								
VJP060/060M (1)	•	•	•	•				
VJP090/090M (1)					•	•		
VJP150/150M (1)							•	•
Accessories for installation								
AMP	•	•	•	•	•	•	•	•
DSC4 (2)	•	•	•	•	•	•	•	•
ZX7	•	•	•	•	•	•		
ZX8							•	•
Auxiliary condensate drip tray								
BC4 (3)	•	•	•	•	•	•	•	•
BC6	•	•	•	•	•	•	•	•
BC9	•	•	•	•	•	•	•	•

\* VJP / VJP\_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

For more details on the control panels and VMF system refer to the dedicated sheet.

(1) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

(2) DSC4 It's not available with AMP - BC -VMF system.

(3) BC4 is not available with valve VCZ-VCZD / VCF-VCFD

## Technical data

VED_I		030	040	130	140	230	240	330	340
<b>Grille</b>									
GA22		•	•						
GA32				•	•				
GA42						•	•		
GA62								•	•
GAF22		•	•						
GAF32				•	•				
GAF42						•	•		
GAF62								•	•
GM22		•	•						
GM32				•	•				
GM42						•	•		
GM62								•	•
SE20X	(4)	•	•						
SE30X	(4)			•	•				
SE40X	(4)					•	•		
SE80X	(4)							•	•
<b>Plenum for duct installation</b>									
MZC220		•	•						
MZC320				•	•				
MZC530						•	•		
MZC830								•	•
RDA000V		•	•						
RDA100V				•	•				
RDA200V						•	•		
RDA300V								•	•
RPA000V	(5)	•	•						
RPA100V	(5)			•	•				
RPA200V	(5)					•	•		
RPA300V	(5)							•	•
RDAC000V		•	•						
RDAC100V				•	•				
RDAC200V						•	•		
RDAC300V								•	•
PA000V	(5)	•	•						
PA100V	(5)			•	•				
PA200V	(5)					•	•		
PA300V	(5)							•	•
PM000V	(5)	•	•						
PM100V	(5)			•	•				
PM200V	(5)					•	•		
PM300V	(5)							•	•
RPM000V	(5)	•	•						
RPM100V	(5)			•	•				
RPM200V	(5)					•	•		
RPM300V	(5)							•	•
RDMC000V		•	•						
RDMC100V				•	•				
RDMC200V						•	•		
RDMC300V								•	•
KFV10		•	•	•	•	•	•	•	•

(4) The accessory SE require pairing with ZX

(5) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

## Technical data

VED I		30			40			130			140			230			240			330			340		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L
<b>Heating Performance</b>																									
<b>2 pipe configuration</b>																									
Heating capacity (70°C)	(1) kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate	(1) l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	729
Pressure drops	(1) kPa	9	7	3	12	10	4	26	22	13	18	16	9	37	30	27	32	26	18	16	13	9	32	28	22
Heating capacity (45°C)	(2) kW	1,83	1,68	0,91	1,95	1,78	1,18	3,13	2,90	2,19	3,27	3,03	2,25	3,56	3,23	2,66	3,93	3,55	2,89	5,23	4,65	3,89	5,45	4,98	4,14
Water flow rate	(2) l/h	318	291	157	338	308	204	543	504	380	568	526	390	618	561	462	683	616	501	907	807	674	945	865	718
Pressure drops	(2) kPa	9	7	3	12	10	4	25	21	13	17	16	9	36	29	26	31	25	17	16	13	9	31	27	21
<b>Cooling Performance</b>																									
Total cooling capacity	(3) kW	1,62	1,45	0,99	1,90	1,72	1,12	3,00	2,79	2,08	3,29	3,05	2,27	3,42	3,13	2,59	4,02	3,63	2,90	5,00	4,42	3,68	5,36	4,79	3,98
Sensible cooling capacity	(3) kW	1,24	1,12	0,75	1,35	1,23	0,81	2,09	1,94	1,44	2,37	2,19	1,61	2,70	2,44	2,00	3,02	2,72	2,20	3,74	3,34	2,80	3,99	3,57	2,95
Water flow rate	(3) l/h	279	250	170	327	296	193	515	480	358	566	525	390	588	538	445	691	624	499	860	760	633	922	824	685
Pressure drops	(3) kPa	9	7	3	14	12	5	31	27	15	23	20	11	44	36	25	37	31	16	18	14	10	26	21	16
<b>Fans</b>																									
Fan - Centrifugal	n°	1			1			2			2			2			2			3			3		
Air flow rate	m³/h	285	256	161	277	249	160	434	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563
High static pressure	Pa	61	50	21	61	50	21	60	50	26	60	50	26,4	64	50	32	63	50	32	66	50	33	64	50	34
<b>Sound data</b>																									
Sound power level (inle+radiator)	(5) dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)	dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
<b>Diameter connections</b>																									
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø	/			/			/			/			/			/			/			/		
<b>Electrical Features</b>																									
Absorbed power	W	36	29	12	36	29	12	45	33	17	45	33	17	53	40	24	53	40	24	86	60	35	86	60	35
Max. input current	A	0,33			0,33			0,41			0,41			0,58			0,58			0,66			0,66		
Signal 0-10V	%	54	80	90	54	80	90	58	82	90	58	82	90	66	80	90	66	80	90	62	78	90	62	78	90
Power supply		230V~50Hz																							

VED I		30+BV030			130+BV130			230+BV230			330+BV162		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L
<b>Heating Performance</b>													
<b>4 pipe configuration</b>													
Heating capacity (65°C)	(4) kW	1,98	1,86	1,42	3,38	3,21	2,63	4,01	3,73	3,28	5,27	4,91	4,37
Water flow rate	(4) l/h	174	163	125	296	281	230	351	326	287	461	429	382
Pressure drops	(4) kPa	7	6	4	23	21	15	13	11	9	21	18	15
<b>Cooling Performance</b>													
Total cooling capacity	(3) kW	1,59	1,42	0,98	2,93	2,73	2,03	3,38	3,08	2,50	4,95	4,38	3,60
Sensible cooling capacity	(3) kW	1,22	1,09	0,75	2,17	1,90	1,40	2,60	2,35	1,90	3,67	3,28	2,72
Water flow rate	(3) l/h	274	244	170	504	469	349	581	530	430	851	753	619
Pressure drops	(3) kPa	8,2	6,6	4	31	27	15	42	35	23	18	14	9
<b>Fan</b>													
Fan	n°	1			2			2			3		
Air flow rate	m³/h	280	250	160	423	388	280	582	513	412	790	695	568
High static pressure	Pa	61	50	21	60	50	26	64	50	32	66	50	33
<b>Sound data</b>													
Sound power level (inle+radiator)	(5) dB(A)	54	52	44	55	53	47	57	54	49	58	55	49
Sound power level (outlet)	dB(A)	50	48	40	50	48	42	52	49	44	54	51	45
<b>Diameter connections</b>													
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"		
<b>Electrical Features</b>													
Absorbed power	W	36	29	12	45	33	17	53	40	24	86	60	35
Max. input current	A	0,33			0,41			0,58			0,66		
Signal 0-10V		54	80	90	58	82	90	66	80	90	62	78	90
Power supply		230V~50Hz											

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

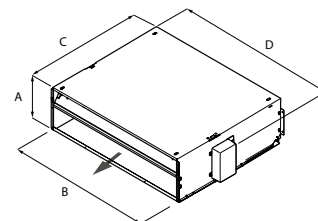
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

## Dimensional data (mm)

VED I		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148
Net weight	Kg	20	21	23	24	29,5	32	32,5	34



All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

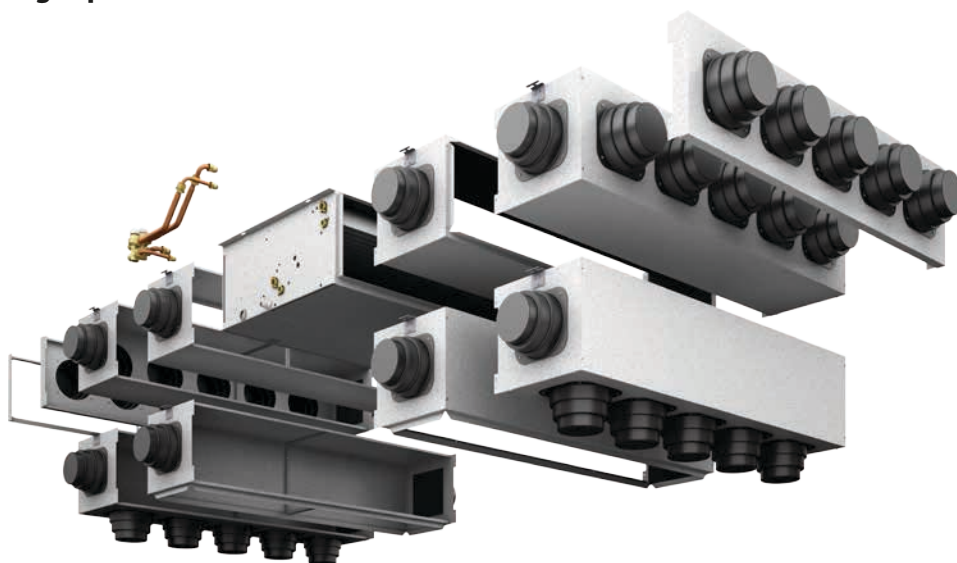
**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



**AERMEC**  
participates in the EUROVENT  
programme for: FCP  
Check ongoing validity of certificate  
online: [www.eurovent-certification.com](http://www.eurovent-certification.com)



*Variable Multi Flow*  
**VMF**



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **1 –2 ROW HEATING ONLY COIL**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **CENTRIFUGAL FANS INVERTER**
- **ACCESSIBLE FAN ASSEMBLY**
- **AIR FILTER CLASS G3**
- **REVERSIBLE COIL**

### Unit selection

By choosing the appropriate options it is possible to select the model to suit the specific system requirements.

#### Configuration fields:

1 2 3   Code	4   Size	5   Main Coil	6   Main coil only hot	7   Inverter motor
<b>Example:</b>				
1 2 3   VED	4   5	5   3	6   2	7   1

### Characteristics

- Ducted air conditioning terminal unit
- Internal installation
- 3 row main coil and heating only coil accessory for 4-pipe systems
- Versions for systems with 4 pipes with main coil with 3 or 4 rows and heating only coil with 1 or 2 rows
- Reversibility of the hydraulic connection in the installation phase
- Low pressure drop in the heat exchange coils
- 3-way valves accessories
- 2-way valves accessories for systems with variable water flow rate
- Centrifugal fans with motor inverter
- Wide range of useful static pressure
- Centrifugal fans in antistatic plastic. Due to their features, they allow to reduce the energy consumption with respect to normal fans
- Fans with wing-shaped profile studied to obtain high flow rate and static pressure performance and low noise emission at the same time
- Compatible with the VMF system
- Wide range of controls
- Wide range of accessories to satisfy all system requirements
- Rectangular flow flange already integrated into the framework
- Class G3 air filter with easy extraction and cleaning
- Internal insulation in Class 1 fire resistance
- IP20 protection rating
- Plastic augers, extractable for easy and efficient cleaning
- Easy installation and maintenance
- Full respect of the accident-prevention standards

## Accessories

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

#### Probes and accessories for control panels

- **WMT21:** Electronic thermostat with LCD display (wall installation).
- **SWAI:** Water temperature probe for WMT21 control panels. Cable length L=2m.

#### VMF system

- **VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18:** Thermostat for serial communication
- **VMF-SW:** water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

#### Valve kit

- **VCF4\_C: Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
- **VCF4\_H: Kit made up from motorised 3-way valves,**

fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply

- **VCF25C: Kit made up from motorised 2-way valves,** with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
- **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
- **VJP/VJP\_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.

**The VJP is controlled by on-off logic** with compatible control panels (accessories)

**The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec

**The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

#### Ducting Accessories:

- **MZC:** Plenum with motor-driven dampers
- **RDA\_V:** Straight intake connection with rectangular flange.

- **RDAC\_V:** Straight intake connection with circular flanges.
- **RPA\_V:** Intake plenum with rectangular flange.
- **RDMC\_V:** Straight discharge with circular flanges. Internally insulated.
- **PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.
- **RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.
- **PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10:** Circular flanges kit for intake/discharge plenum.

#### Grid

- **GA:** Intake grid with fixed louvers.
- **GAF:** Intake grid with fixed louvers with filter.
- **GM:** Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VED_I	530	532	540	541	730	732	740	741
Probes and accessories for control panels								
WMT21	•	•	•	•	•	•	•	•
SWAI	In combination with WMT21							
VMF System								
VMF-E18	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
Water valves								
3 way valve kit								
VCF45C	•	•	•	•				
VCF47C					•	•	•	•
3 way valve kit for heating coil only								
VCF45H		•		•				
VCF47H						•		•
2 way valve kit								
VCF25C	•	•	•	•	•	•	•	•
2 way valve kit for heating coil only								
VCF25H		•		•		•		•
Combined adjustment and balancing valve independent of pressure*								
VJP150/150M (1)	•	•	•	•				•
VJP270M (1)					•	•	•	•
Plenum for duct installation								
MZC5040	•	•	•	•				
MZC7050					•	•	•	•
RDA 450 V	•	•	•	•				
RDA 670 V					•	•	•	•
RPA 450 V	•	•	•	•				
RPA 670 V					•	•	•	•
PA 450 V	•	•	•	•				
PA 670 V					•	•	•	•
RPM 450 V	•	•	•	•				
RPM 670 V					•	•	•	•
PM 450 V	•	•	•	•				
PM 670 V					•	•	•	•
KFV	•	•	•	•	•	•	•	•

For more details on the control panels, VMF system MZC refer to the dedicated sheet.

(1) VJP090M-VJP150M-VJP270M are 24V

\* **VJP/VJP\_M** The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

## Technical data

VED_I		530			540			730			740		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance													
2 pipe configuration													
Heating capacity (70°C)	(1) kW	17,57	16,44	13,80	19,91	18,59	15,38	29,00	25,36	21,18	31,71	27,65	22,88
Water flow rate	(1) l/h	1541	1444	1210	1746	1630	1349	2543	2224	1857	2781	2425	2007
Pressure drops	(1) kPa	21	18	13	29	25	18	67	55	38	46	36	26
Heating capacity (45°C)	(2) kW	8,74	8,19	6,87	9,90	9,25	7,65	14,43	12,62	10,54	15,77	13,76	11,38
Water flow rate	(2) l/h	1517	1421	1191	1719	1604	1327	2503	2190	1828	2737	2387	1975
Pressure drops	(2) kPa	20	17	13	28	24	17	65	53	37	45	35	25
Cooling Performance													
Total cooling capacity	(3) kW	7,76	7,39	6,16	8,97	8,54	7,43	13,85	12,20	10,40	16,08	14,23	11,96
Sensible cooling capacity	(3) kW	6,02	5,71	4,72	6,45	6,13	5,04	11,44	9,99	8,48	11,32	9,97	8,34
Water flow rate	(3) l/h	1335	1271	1060	1543	1469	1278	2382	2098	1789	2766	2448	2057
Pressure drops	(3) kPa	21	19	12	28	25	19	58	46	35	45	37	27
Fans													
Fan - Centrifugal	n°	2			2			3			3		
Air flow rate	m³/h	1520	1400	1120	1500	1380	1100	2410	2040	1640	2350	2000	1600
High static pressure	Pa	58	50	32	56	50	32	69	50	32	69	50	32
Sound data													
Sound power level (inle+radiator)	(5) dB(A)	62	59	53	62	59	53	68	66	62	68	66	62
Sound power level (outlet)	dB(A)	58	55	49	58	55	49	64	62	58	64	62	58
Diameter connections													
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø	/			/			/			/		
Electrical Features													
Absorbed power	W	205	170	115	205	170	115	370	245	140	370	245	140
Max. input current	A	1,4			1,4			2,1			2,1		
Signal 0-10V	%	66	84	90	66	84	90	62	76	90	62	76	90
Power supply		230V~50Hz											

VED_I		532			541			732			741			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance														
4 pipe configuration														
Heating capacity (65°C)	(4)	kW	12,10	11,48	9,58	7,90	7,62	6,70	19,81	17,63	14,95	12,96	11,88	10,57
Water flow rate	(4)	l/h	1058	1004	838	692	666	584	1733	1542	1308	1133	1040	925
Pressure drops	(4)	kPa	18	16	11	26	24	19	26	21	16	25	21	17
Cooling Performance														
Total cooling capacity	(3)	kW	7,76	7,39	6,16	8,97	8,54	7,43	13,85	12,20	10,40	16,08	14,23	11,96
Sensible cooling capacity	(3)	kW	6,02	5,71	4,72	6,45	6,13	5,04	11,44	9,99	8,48	11,32	9,97	8,34
Water flow rate	(3)	l/h	1335	1271	1060	1543	1469	1278	2382	2098	1789	2766	2448	2057
Pressure drops	(3)	kPa	21	19	12	28	25	19	58	46	35	45	37	27
Fan														
Fan - Centrifugal	n°	2			2			3			3			
Air flow rate	m³/h	1460	1360	1060	1460	1360	1060	2350	2000	1600	2350	2000	1600	
High static pressure	Pa	56	50	32	56	50	32	69	50	32	69	50	32	
Sound data														
Sound power level (inle+radiator)	(5)	dB(A)	62	59	53	62	59	53	68	66	62	68	66	62
Sound power level (outlet)		dB(A)	58	55	49	58	55	49	64	62	58	64	62	58
Diameter connections														
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"			
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"			
Electrical Features														
Absorbed power	W	185	163	106	185	163	106	363	240	138	363	240	138	
Max. input current	A	1,4			1,4			2,1			2,1			
Signal 0-10V	%	66	84	90	66	84	90	62	76	90	64	78	90	
Power supply		230V~50Hz												

H max. speed; M med.speed; L min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

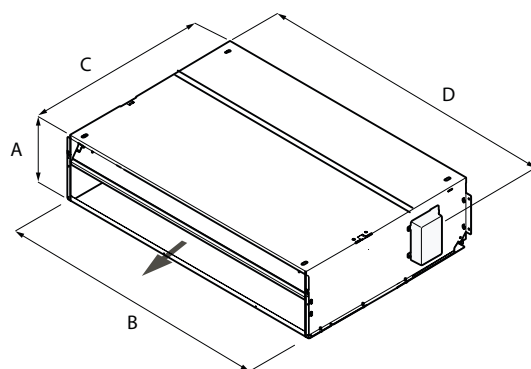
(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

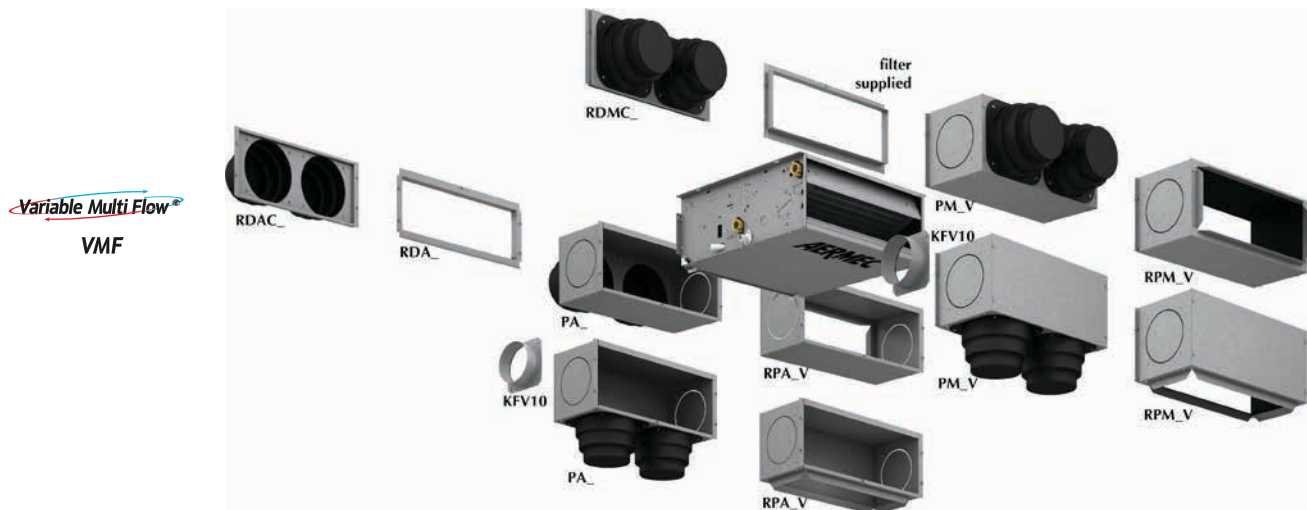
## Dimensional data (mm)



VED. I		530	532	540	541	730	732	740	741
A	mm	300	300	300	300	351	351	351	351
B	mm	1133	1133	1133	1133	1533	1533	1533	1533
C	mm	737	737	737	737	789	789	789	789
D	mm	1158	1158	1158	1158	1558	1558	1558	1558
Weight	Kg	42	47	44	47	58	58	61	61

Cod.: SVEDI530\_741UY05/ 1612

**Fan coil unit**  
**For ducted installations**  
**Cooling capacity from 1,82 to 5,70kW**  
**Heating capacity from 1,25 to 10,95kW**



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **HEAT EXCHANGER DEVELOPED TO OPTIMIZE THE PERFORMANCE SENSITIVE**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**

## Features

Ducted fan coil, for heating, cooling and dehumidifying, specific to work in sensible environment. The fan unit at available working pressures, brought internal insulation, ensure excellent acoustic comfort levels.

The small dimensions and easy installation make the fan coil designed for 2 and 4-pipe applications.

The main coil, reversible during installation, is designed to ensure an high heat transfer, ideal for applications in sensible environment.

- Main standard coil or increased for 2-pipe systems
- Main standard coil and additional heating coil (accessory) for 4-pipe system
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Fan assembly, high useful head, with aerofoil designed for high performance and simultaneously low-noise comfort
- Centrifugal fans plastic material, in order to reduce power consumption by increasing the ventilation efficiency
- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in fire Class 1
- Protective rating IP20
- Fan housing in plastic material removable for easy and useful cleaning
- Easy of installation and maintenance
- Full compliance with safety standards.



## Accessories

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

### Probes and accessory for control panels

- SW3:** water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over
- SWA:** external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- SIT 3 - 5:** Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

### VMF system

- VMF-E0:** Thermostat accessory to be mounted on the side of the fancoil, equipped with air and water sensors as standard; controls 2 pipe, 4 pipe, 2 pipe + Plasmacluster, 2 pipe + UV lamps, 2 pipe + electrical heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + maximum 5 slaves). The thermostat is fuse protected.
- VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- VMF-E5:** Wall recessed panel allowing control of a com-

plete hydronic system via a capacitive touch keyboard.

- VMF-E1:** Thermostat for serial communication.
- VMF-SW:** Water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- VMF-SW1:** Additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

### Hot water coil

- BV:** Single row hot water heat exchanger. Not available for versions with Plasmacluster.

### Valve kit

- VCZ\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.
- VCZ or VCF: kit containing a motorised 3-way valve with insulating shell** plus coupling and pipes in insulated copper. Applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- VCZD or VCFD: Kit consisting of powered 2-way valve,** copper couplings and pipes applicable for standard or oversized main coil. Available with 230V and 24V~50Hz power supply.
- VJP/VJP\_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.  
**The VJP is controlled by on-off logic** with compatible control panels (accessories)  
**The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec  
**The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

### Accessory for Installation

- AMP:** kit for the wall mounting installation.

- BC:** Auxiliary condensate drip tray.
- DSC4:** Condensate drainage device for use when natural run-off is not possible.
- PA:** Galvanised sheet steel intake plenum equipped with intake fittings for circular section ducts.
- PA-F:** Intake plenum, which allows recovery and flow on the same side. It is suitable for all those installations outside air-conditioned rooms, in order to minimise noise and facilitate maintenance operations.
- PM:** Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts and circular sections.
- RD:** Straight flow fitting for ducting.
- RDA:** Straight intake fitting for ducting.
- RP:** 90° flow fitting for ducting
- RPA:** 90° intake fitting for ducting.

### DUCTING ACCESSORIES

- RDA\_V:** Straight intake connection with rectangular flange.
- RDAC\_V:** Straight intake connection with circular flanges.
- RPA\_V:** Intake plenum with rectangular flange.
- RDMC\_V:** Straight discharge with circular flanges. Internally insulated.
- PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.
- RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.
- PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- KFV10:** Circular flanges kit for intake/discharge plenum.

### Grid

- GA:** Intake grid with fixed louvers.
- GAF:** Intake grid with fixed louvers with filter.
- GM:** Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VES	030	040	130	140	230	240	330	340
Probes and accessories for control panels								
KTLP	•	•	•	•	•	•	•	•
PX-PX2-PX2C6 (1)	•	•	•	•	•	•	•	•
PXAE	•	•	•	•	•	•	•	•
PXAR	•	•	•	•	•	•	•	•
TPF	•	•	•	•	•	•	•	•
WMT05-06-10	•	•	•	•	•	•	•	•
FMT10	•	•	•	•	•	•	•	•
FMT21	•	•	•	•	•	•	•	•
SWA	In combination with FMT21							
SW3	In combination with PXAE or PXAR							
SIT3	In combination with FMT21 or PXAE or PXAR or PX2 or PX or PX2C6 WMT05*-06-10							
SIT5	In combination with FMT21 or PXAE or PXAR							
VMF System								
VMF-E0	•	•	•	•	•	•	•	•
VMF-E1	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
Additional coil (heating only)								
BV030	•							
BV130			•					
BV230					•			
BV162							•	
Water valves *								
Valve Kit for 4 pipe systems with Main coil								
VCF3X4L-R	•	•	•	•	•	•	•	•
3 way valve kit								
VCF43/4324 (2)	•	•	•		•		•	•
VCF43S/4324S (2)				•		•		
2 way valve kit								
VCED3/324 (2)	•	•	•	•	•	•	•	•

For more details on the control panels and VMF system refer to the dedicated sheet.

\* WMT05 is not available with additional coil (heating only) BV

(1) Only for wall installation; (PX2C6 panel PX2 in multiple 6 pz.)

(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

(3) DSC4 It's not available with AMP - BC -VMF system

## Accessories

VES		030	040	130	140	230	240	330	340
<b>3 way valve kit for heating coil only</b>									
VCF45/4524		•		•		•		•	
<b>2 way valve kit for heating coil only</b>									
VCFD4/424		•		•		•		•	
<b>Combined adjustment and balancing valve independent of pressure**</b>									
VJP060/060M	(2)	•	•	•	•				
VJP090/090M	(2)					•	•		
VJP150/150M	(2)							•	•
<b>Accessories for installation</b>									
AMP		•	•	•	•	•	•	•	•
DSC4	(3)	•	•	•	•	•	•	•	•
ZX7		•	•	•	•	•	•		
ZX8								•	•
<b>Auxiliary condensate drip tray</b>									
BC4	(4)	•	•	•	•	•	•	•	•
BC6		•	•	•	•	•	•	•	•
BC9		•	•	•	•	•	•	•	•
<b>Grille</b>									
GA22		•	•						
GA32				•	•				
GA42						•	•		
GA62								•	•
GAF22		•	•						
GAF32				•	•				
GAF42						•	•		
GAF62								•	•
GM22		•	•						
GM32				•	•				
GM42						•	•		
GM62								•	•
SE20X	(5)	•	•						
SE30X	(5)			•	•				
SE40X	(5)					•	•		
SE80X	(5)							•	•
<b>Plenum for duct installation</b>									
RDA000V		•	•						
RDA100V				•	•				
RDA200V						•	•		
RDA300V								•	•
RPA000V	(6)	•	•						
RPA100V	(6)			•	•				
RPA200V	(6)					•	•		
RPA300V	(6)							•	•
RDAC000V		•	•						
RDAC100V				•	•				
RDAC200V						•	•		
RDAC300V								•	•
PA000V	(6)	•	•						
PA100V	(6)			•	•				
PA200V	(6)					•	•		
PA300V	(6)							•	•
PM000V	(6)	•	•						
PM100V	(6)			•	•				
PM200V	(6)					•	•		
PM300V	(6)							•	•
RPM000V	(6)	•	•						
RPM100V	(6)			•	•				
RPM200V	(6)					•	•		
RPM300V	(6)							•	•
RDMC000V		•	•						
RDMC100V				•	•				
RDMC200V						•	•		
RDMC300V								•	•
KFV10		•	•	•	•	•	•	•	•

\*\* VJP / VJP\_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

(2) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

(3) DSC4 It's not available with AMP - BC -VMF system

(4) For vertical installation. BC4 is not available whith valve VCZ-VCZD / VCF-VCFD

(5) The accessory SE require pairing with ZX

(6) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).

## Technical data

VES		30			40			130			140			230			240			330			340			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate	(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	722
Pressure drops	(1)	kPa	9	7	3	12	10	4	26	22	13	18	16	9	37	30	27	32	26	18	16	13	9	32	28	22
Heating capacity (50°C)	(2)	kW	2,22	2,03	1,09	2,36	2,15	1,42	3,79	3,52	2,65	3,96	3,67	2,72	4,31	3,92	3,22	4,77	4,30	3,49	6,33	5,63	4,71	6,60	6,04	5,01
Water flow rate	(2)	l/h	383	350	189	406	370	245	660	612	461	682	632	469	743	674	555	820	741	602	1090	969	810	1136	1039	862
Pressure drops	(2)	kPa	13	10	4	17	14	6	39	34	20	25	22	13	54	44	39	48	38	26	22	18	13	45	39	32
Cooling Performance																										
Total cooling capacity	(3)	kW	1,91	1,75	1,25	2,75	1,89	1,30	3,11	2,87	2,20	3,30	3,08	2,43	3,95	3,57	2,85	4,08	3,76	3,40	5,36	4,82	4,00	5,71	5,12	4,46
Sensible cooling capacity	(3)	kW	1,36	1,24	0,88	1,46	1,32	0,86	2,34	2,17	1,59	2,38	2,21	1,68	2,90	2,62	2,13	3,01	2,73	2,35	3,85	3,44	2,85	4,09	3,66	3,18
Water flow rate	(3)	l/h	330	302	215	360	325	224	535	496	379	569	530	419	679	614	491	702	646	584	922	829	689	982	880	768
Pressure drops	(3)	kPa	24	21	11	36	30	15	56	49	30	29	25	17	101	85	57	56	48	40	30	25	18	50	41	32
Total cooling capacity	(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Sensible cooling capacity	(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Water flow rate	(4)	l/h	151	138	98	136	88	57	244	228	173	262	242	192	309	283	225	333	300	270	445	397	349	461	416	354
Pressure drops	(4)	kPa	4	4	2	5	2	1	10	9	5	5	4	3	18	15	10	9	7	6	6	4	3	8	6	5
Fans																										
Centrifugal Fan	n°		1			1			2			2			2			2			3			3		
Air flow rate	m³/h		285	256	161	277	249	160	434	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563
High static pressure	Pa		61	50	21	61	50	21	60	50	26	60	50	26,4	64	50	32	63	50	32	66	50	33	64	50	34
Sound data																										
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
Diameter connections																										
Standard coil	Ø		3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø		/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power	W		59	38	23	58	38	23	76	53	34	75	52	34	93	57	43	92	57	43	104	75	63	103	74	63
Max. input current	A		0,37			0,37			0,41			0,41			0,58			0,58			0,66			0,66		
Electrical wiring			V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V4	V1	V6	V3	V1	V6	V3	V1	V7	V3	V1	V7	V3	V1
Power supply			230V~50Hz																							

VES			30+BV030			130+BV130			230+BV230			330+BV162		
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance														
4 pipe configuration														
Heating capacity (70°C)	(1)	kW	2,22	2,08	1,59	3,78	3,60	2,95	4,49	4,17	3,68	5,89	5,50	4,90
Water flow rate	(1)	l/h	195	183	139	332	315	258	394	366	322	516	482	429
Pressure drops	(1)	kPa	8	7,4	3	28	25	17	16	12	8	26	23	19
Cooling Performance														
Total cooling capacity	(3)	kW	1,91	1,75	1,25	3,04	2,81	2,16	3,90	3,50	2,81	5,27	4,76	3,97
Sensible cooling capacity	(3)	kW	1,36	1,24	0,88	2,29	2,12	1,55	2,86	2,57	2,10	3,79	3,40	2,83
Water flow rate	(3)	l/h	330	302	215	524	485	372	671	602	485	908	820	684
Pressure drops	(3)	kPa	24	21	11	54	47	29	99	82	55	30	25	18
Total cooling capacity	(4)	kW	0,86	0,78	0,57	1,39	1,30	0,97	1,78	1,61	1,28	2,56	2,27	2,03
Sensible cooling capacity	(4)	kW	0,86	0,78	0,57	1,39	1,30	0,97	1,78	1,61	1,28	2,56	2,27	2,03
Water flow rate	(4)	l/h	149	136	98	239	224	168	306	278	221	441	392	350
Pressure drops	(4)	kPa	5	4	2	10	8	5	18	15	9	5	4	3
Fans														
Centrifugal Fan	n°		1			2			2			3		
Air flow rate	m³/h		280	250	160	423	388	280	582	513	412	790	695	568
High static pressure	Pa		61	50	21	60	50	26	64	50	32	66	50	33
Sound data														
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	55	53	47	57	54	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	42	52	49	44	54	51	45
Diameter connections														
Standard coil	Ø		3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø		1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power	W		59	38	23	76	53	34	93	57	43	104	75	63
Max. input current	A		0,37			0,41			0,58			0,66		
Electrical wiring			V6	V4	V1	V6	V4	V1	V6	V3	V1	V7	V3	V1
Power supply			230V~50Hz											

H velocità massima; M velocità media; L velocità minima

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

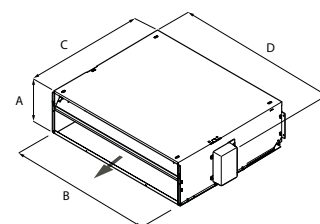
(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 13°C/18°C

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

## Dimensions and weight


VES		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D*	mm	576	576	807	807	1027	1027	1148	1148
Weight	Kg	22	24	25	33	33	34	35	34

\* maximum dimensions



All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



**INVERTER**  
TECHNOLOGY

*Variable Multi Flow*®

**VMF**



- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in fire Class 1
- Protective rating IP20
- Fan housing in plastic material removable for easy and useful cleaning
- Easy of installation and maintenance
- Full compliance with safety standards.

## Accessories

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

#### Probes and accessories for control panels

- **WMT21:** Electronic thermostat with LCD display (wall installation).
- **SWAI:** Water temperature probe for WMT21 control panels. Cable length L=2m.

#### VMF system

- **VMF-E4:** Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-E5:** Wall recessed panel allowing control of a complete hydronic system via a capacitive touch keyboard.
- **VMF-E18:** Thermostat for serial communication
- **VMF-SW:** water sensor replacing that supplied with VMF-E1 thermostats for installation upstream of the valve.
- **VMF-SW1:** additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

#### Hot water coil

- **BV:** Single row hot water heat exchanger.

#### Valve kit

- **VCF\_X4:** Valve kits for single coil units, installed in 4 pipe systems with totally separated "Cooling" and "Heating" circuits. The kit consists of 2 valves with 3-way 4 port connection complete with electro-thermal actuators, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.

tors, insulating shells for the valves and associated hydraulic piping. The VCF1X4L valve kit allows left side connection.

- **VCF4\_C: Kit made up from motorised 3-way valves** with isolating shell, fittings and isolated copper pipes. For main coils. 230V~50Hz power supply
  - **VCF4\_H: Kit made up from motorised 3-way valves,** fittings and isolated copper pipes. For heating only coils. 230V~50 Hz power supply
  - **VCF25C: Kit made up from motorised 2-way valves,** with fittings and isolated copper pipes. For main coils. 230V~50 Hz power supply
  - **VCF25H: Kit made up from motorised 2-way valves,** with fittings and copper pipes. For heating only coils. 230V~50 Hz power supply
  - **VJP/VJP\_M: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components.** The valve, which can guarantee a constant water flow rate in the terminal, within its operating range, is available with 230V and 24V~50Hz power supply.
- The VJP is controlled by on-off logic** with compatible control panels (accessories)
- The VJP\_M is controlled by modulating logic** with panels not supplied by Aermec
- The design water flow rate is crucial to refine the selection of the valve shown in the compatibility table.**

#### Accessory for Installation

- **AMP:** kit for the wall mounting installation.

- **BC:** Auxiliary condensate drip tray.
- **DSC4:** Condensate drainage device for use when natural run-off is not possible.

#### Ducting Accessories:

- **MZC:** Plenum with motor-driven dampers
- **RDA\_V:** Straight intake connection with rectangular flange.
- **RDAC\_V:** Straight intake connection with circular flanges.
- **RPA\_V:** Intake plenum with rectangular flange.
- **RDMC\_V:** Straight discharge with circular flanges. Internally insulated.
- **PA\_V:** Intake plenum with circular flanges. Flanges in plastic material.
- **RPM\_V:** Discharge plenum with rectangular flange. Internally insulated.
- **PM\_V:** Discharge plenum with circular flanges. Internally insulated. Flanges in plastic material.
- **KFV10:** Circular flanges kit for intake/discharge plenum.

#### Grid

- **GA:** Intake grid with fixed louvers.
- **GAF:** Intake grid with fixed louvers with filter.
- **GM:** Flow grid with adjustable louvers.

For more details on the control panels and VMF system refer to the dedicated sheet

VES_I	030	040	130	140	230	240	330	340
Probes and accessories for control panels								
WMT21	•	•	•	•	•	•	•	•
SWAI	In combination with WMT21							
VMF System								
VMF-E18	•	•	•	•	•	•	•	•
VMF-E4	•	•	•	•	•	•	•	•
VMF-E5	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•
Additional coil (heating only)								
BV030	•							
BV130			•					
BV230					•			
BV162							•	
Water valves								
Valve Kit for 4 pipe systems with Main coil								
VCF3X4L-R	•	•	•	•	•	•	•	•
3 way valve kit								
VCF43/4324 (1)	•	•	•	•	•	•	•	•
2 way valve kit								
VCFD3/324 (1)	•	•	•	•	•	•	•	•
3 way valve kit for heating coil only								
VCF45/4524	•		•		•		•	
2 way valve kit for heating coil only								
VCFD4/424	•		•		•		•	
Combined adjustment and balancing valve independent of pressure								
VJP060/060M (1)	•	•	•	•				
VJP090/090M (1)					•	•		
VJP150/150M (1)							•	•
Accessories for installation								
AMP	•	•	•	•	•	•	•	•
DSC4 (2)	•	•	•	•	•	•	•	•
ZX7	•	•	•	•	•	•		
ZX8							•	•
Auxiliary condensate drip tray								
BC4 (3)	•	•	•	•	•	•	•	•
BC6	•	•	•	•	•	•	•	•
BC9	•	•	•	•	•	•	•	•

\* VJP / VJP\_M The compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

For more details on the control panels and VMF system refer to the dedicated sheet.

(1) VCF4324-VCFD324-VCF4524-VCZD424-VJP060M are 24V

(2) DSC4 It's not available with AMP - BC -VMF system.

(3) BC4 is not available with valve VCZ-VCZD / VCF-VCFD

## Accessory

VES_I	030	040	130	140	230	240	330	340
<b>Grille</b>								
GA22	•	•						
GA32			•	•				
GA42					•	•		
GA62							•	•
GAF22	•	•						
GAF32			•	•				
GAF42					•	•		
GAF62							•	•
GM22	•	•						
GM32			•	•				
GM42					•	•		
GM62							•	•
SE20X (4)	•	•						
SE30X (4)			•	•				
SE40X (4)					•	•		
SE80X (4)							•	•
<b>Plenum for duct installation</b>								
MZC220	•	•						
MZC320			•	•				
MZC530					•	•		
MZC830							•	•
RDA000V	•	•						
RDA100V			•	•				
RDA200V					•	•		
RDA300V							•	•
RPA000V (5)	•	•						
RPA100V (5)			•	•				
RPA200V (5)					•	•		
RPA300V (5)							•	•
RDAC000V	•	•						
RDAC100V			•	•				
RDAC200V					•	•		
RDAC300V							•	•
PA000V (5)	•	•						
PA100V (5)			•	•				
PA200V (5)					•	•		
PA300V (5)							•	•
PM000V (5)	•	•						
PM100V (5)			•	•				
PM200V (5)					•	•		
PM300V (5)							•	•
RPM000V (5)	•	•						
RPM100V (5)			•	•				
RPM200V (5)					•	•		
RPM300V (5)							•	•
RDMC000V	•	•						
RDMC100V			•	•				
RDMC200V					•	•		
RDMC300V							•	•
KFV10	•	•	•	•	•	•	•	•

(4) The accessory SE require pairing with ZX

(5) All the Plenums ( RPA\_V; PA\_V; RPM\_V; PM\_V ) have a circular push-outs (Ø=150mm ) on both sides, which can be removed, All the can have intake/discharge either straight or downwards (straight or downwards with reference to horizontal installation).



## Technical data

VES_I			30			40			130			140			230			240			330			340			
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																											
2 pipe configuration																											
Heating capacity (70°C)		(1)	kW	3,69	3,37	1,82	3,92	3,57	2,37	6,29	5,83	4,40	6,58	6,09	4,52	7,16	6,50	5,35	7,91	7,14	5,80	10,51	9,34	7,81	10,95	10,02	8,31
Water flow rate		(1)	l/h	323	296	160	343	313	207	552	512	386	577	534	396	628	570	469	694	626	509	921	819	685	960	878	729
Pressure drops		(1)	kPa	9	7	3	12	10	4	26	22	13	18	16	9	37	30	27	32	26	18	16	13	9	32	28	22
Heating capacity (50°C)		(2)	kW	1,83	1,68	0,92	1,95	1,77	1,18	3,13	2,90	2,19	3,27	3,03	2,25	3,56	3,23	2,66	3,93	3,55	2,88	5,22	4,65	3,89	5,45	4,98	4,13
Water flow rate		(2)	l/h	318	291	157	338	308	204	544	503	379	568	525	390	618	561	462	683	616	500	907	806	674	945	865	717
Pressure drops		(2)	kPa	9	7	2	12	10	5	27	24	14	18	16	9	39	32	23	32	26	18	16	13	9	30	26	18
Cooling Performance																											
Total cooling capacity		(3)	kW	1,91	1,75	1,25	2,75	1,89	1,30	3,11	2,87	2,20	3,30	3,08	2,43	3,95	3,57	2,85	4,08	3,76	3,40	5,36	4,82	4,00	5,71	5,12	4,46
Sensible cooling capacity		(3)	kW	1,36	1,24	0,88	1,46	1,32	0,86	2,34	2,17	1,59	2,38	2,21	1,68	2,90	2,62	2,13	3,01	2,73	2,35	3,85	3,44	2,85	4,09	3,66	3,18
Water flow rate		(3)	l/h	330	302	215	360	325	224	535	496	379	569	530	419	679	614	491	702	646	584	922	829	689	982	880	768
Pressure drops		(3)	kPa	24	21	11	36	30	15	56	49	30	29	25	17	101	85	57	56	48	40	30	25	18	50	41	32
Total cooling capacity		(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Sensible cooling capacity		(4)	kW	0,88	0,80	0,57	0,78	0,51	0,33	1,42	1,32	1,00	1,52	1,40	1,11	1,80	1,64	1,30	1,93	1,74	1,57	2,58	2,30	2,03	2,68	2,41	2,05
Water flow rate		(4)	l/h	151	138	98	136	88	57	244	228	173	262	242	192	309	283	225	333	300	270	445	397	349	461	416	354
Pressure drops		(4)	kPa	4	4	2	5	2	1	10	9	5	5	4	3	18	15	10	9	7	6	6	4	3	8	6	5
Fans																											
Fan (Centrifugal)		n°	1			1			2			2			2			2			3			3			
Air flow rate		m³/h	285	256	161	277	249	160	434	397	287	420	386	280	590	524	417	570	509	406	805	704	572	775	685	563	
High static pressure		Pa	61	50	21	61	50	21	60	50	26	60	50	26,4	64	50	32	63	50	32	66	50	33	64	50	34	
Sound data																											
Sound power level (inle+radiator)		(5)	dB(A)	54	52	44	54	52	44	55	53	47	55	53	47	57	54	49	57	54	49	58	55	49	58	55	49
Sound power level (outlet)			dB(A)	50	48	40	50	48	40	50	48	42	50	48	42	52	49	44	52	49	44	54	51	45	54	51	45
Diameter connections																											
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			
Additional coil		Ø	/			/			/			/			/			/			/			/			
Electrical Features																											
Absorbed power		W	36	28	12	35	28	12	45	35	16	44	34	16	62	52	33	61	52	34	86	61	40	84	63	41	
Max. input current		A	0,37			0,37			0,41			0,41			0,58			0,58			0,66			0,66			
Signal 0-10V		%	54	80	90	54	80	90	58	82	90	58	82	90	66	80	90	62	80	90	62	78	90	66	78	90	
Power supply		V/ph/Hz	230V~50Hz																								

VES_I			30+BV030			130+BV130			230+BV230			330+BV162		
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance														
4 pipe configuration														
Heating capacity (70°C)	(1)	kW	2,22	2,08	1,59	3,78	3,60	2,95	4,49	4,17	3,68	5,89	5,50	4,90
Water flow rate	(1)	l/h	195	183	139	332	315	258	394	366	322	516	482	429
Pressure drops	(1)	kPa	8	7,4	3	28	25	17	16	12	8	26	23	19
Cooling Performance														
Total cooling capacity	(3)	kW	1,91	1,75	1,25	3,04	2,81	2,16	3,90	3,50	2,81	5,27	4,76	3,97
Sensible cooling capacity	(3)	kW	1,36	1,24	0,88	2,29	2,12	1,55	2,86	2,57	2,10	3,79	3,40	2,83
Water flow rate	(3)	l/h	330	302	215	524	485	372	671	602	485	908	820	684
Pressure drops	(3)	kPa	24	21	11	54	47	29	99	82	55	30	25	18
Total cooling capacity	(4)	kW	0,86	0,78	0,57	1,39	1,30	0,97	1,78	1,61	1,28	2,56	2,27	2,03
Sensible cooling capacity	(4)	kW	0,86	0,78	0,57	1,39	1,30	0,97	1,78	1,61	1,28	2,56	2,27	2,03
Water flow rate	(4)	l/h	149	136	98	239	224	168	306	278	221	441	392	350
Pressure drops	(4)	kPa	5	4	2	10	8	5	18	15	9	5	4	3
Fans														
Fan (Centrifugal)	n°		1			2			2			3		
Air flow rate	m³/h		280	250	160	423	388	280	582	513	412	790	695	568
High static pressure	Pa		61	50	21	60	50	26	64	50	32	66	50	33
Sound data														
Sound power level (inle+radiator)	(5)	dB(A)	54	52	44	55	53	47	57	54	49	58	55	49
Sound power level (outlet)		dB(A)	50	48	40	50	48	42	52	49	44	54	51	45
Diameter connections														
Standard coil	Ø		3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø		1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power	W		36	28	12	45	35	16	62	52	33	86	61	40
Max. input current	A		0,37			0,41			0,58			0,66		
Signal 0-10V	%		54	80	90	58	82	90	66	80	90	62	78	90
Power supply	V/ph/Hz		230V~50Hz											

H velocità massima; M velocità media; L velocità minima

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;

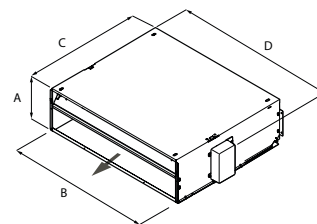
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 13°C/18°C

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

## Dimensional data (mm)

VES_I		030	040	130	140	230	240	330	340
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148
Weight	Kg	20	21	23	24	29	32	32	34



Cod.: SVE51030\_340US.06 / 1702



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSIONS FOR 2/4 PIPE SYSTEMS**
- **LARGE RANGE OF AVAILABLE STATIC PRESSURE**
- **HEIGHT 217mm (SLIM LINE)**

## Features

Ducted fan coil with inverter technology, for heating, cooling and dehumidifying, specific to work in sensible environment.

Equipped with inverter Brushless motor for an high efficiency and a continuos air flow rate modulation in order to increased comfort and guarantee electric saving. The inverter motor allows a better air temperature regulation based on the real indoor environment requirements without swinging temperature.

The fan unit at available working pressures, trough internal insulation, ensure excellent acoustic comfort levels.

The small dimensions and easy installation make the fan coil designed for 2 and 4-pipe applications.

The main coil, is designed to ensure an high heat transfer, ideal for applications in sensible environment.

- Main standard coil or increased for 2-pipe systems
- Main standard coil and additional heating coil (accessory) for 4-pipe system
- 3-way valve accessory
- 2-way valve accessory for variable flow systems
- Fan assembly, high useful head, with aerofoil designed for high performance and simultaneously low-noise comfort
- Centrifugal fans plastic material, in order to reduce power consumption by increasing the ventilation efficiency

- Compatible with the VMF system
- Large range of controllers
- Large range of accessories to satisfy all installation requirements
- Discharge connection supplied loose
- Air filter Class G3, for easy removal and cleaning
- Internal insulation in fire Class 1
- Protective rating IP20
- Fan housing in plastic material removable for easy and useful cleaning
- Easy of installation and maintenance
- Full compliance with safety standards.

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirement

Campo	Code
1,2,3	VES
4	Size
	5 - 7
5	Main coil
3	Standard
4	Increased coil
6,7	Coil only hot
	00 without coil
	05 coil only heating power limited
	10 coil only heating
8	Inverter motor
	I Inverter



## Technical data

VES I		5300			5400			7300			7400		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance													
2 pipe configuration													
Heating capacity (70°C)	(1) kW	12,18	11,27	9,91	12,98	11,92	10,29	23,50	21,67	16,78	25,37	23,30	17,88
Water flow rate	(1) l/h	1069	989	869	1139	1046	902	2061	1901	1472	2225	2044	1569
Pressure drops	(1) kPa	32	26	22	16	14	11	47	40	23	33	28	18
Heating capacity (50°C)	(2) kW	7,35	6,80	5,98	7,83	7,19	6,21	14,18	13,07	10,12	15,30	14,05	10,79
Water flow rate	(2) l/h	1278	1182	1040	1361	1250	1079	2464	2273	1760	2660	2443	1876
Pressure drops	(2) kPa	45	39	31	22	19	15	65	56	35	46	40	25
Cooling Performance													
Total cooling capacity	(3) kW	5,63	5,18	4,44	5,85	5,35	4,56	10,37	9,94	8,17	11,81	10,85	8,05
Sensible cooling capacity	(3) kW	3,82	3,51	3,02	3,92	3,59	3,08	7,29	6,76	5,36	7,91	7,26	5,49
Water flow rate	(3) l/h	968	891	763	1006	921	784	1830	1709	1406	2032	1779	1384
Pressure drops	(3) kPa	36	31	23	19	16	12	49	44	31	39	31	20
Water content	l	/			/			/			/		
Fans													
Fan	type/n°	centrifugal/4			centrifugal/4			centrifugal/6			centrifugal/6		
Air flow rate	m³/h	825	750	640	825	750	640	1650	1500	1138	1650	1500	1138
High static pressure	Pa	60	50	37	60	50	36	60	50	29	60	50	29
Sound data													
Sound power level (inle+radiator)	(4) dB(A)	58	56	52	58	56	52	62	60	40	62	60	40
Sound power level (outlet)	dB(A)	54	52	48	54	52	48	58	56	36	58	56	36
Diameter connections													
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø	/			/			/			/		
Electrical Features													
Absorbed power	W	72	53	38	72	53	38	153	120	66	153	120	66
Max. input current	A												
Signal 0-10V		9V	8,2V	7V	9V	8,2V	7V	9V	8,2V	6,2V	9V	8,2V	6,2V
Power supply	V/ph/Hz	230V~50Hz											

VES I		5305			5310			7305			7310		
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L
Heating Performance													
4 pipe configuration													
Heating capacity (70°C)	(1) kW	4,15	3,91	3,55	7,07	6,64	5,95	5,24	4,94	4,06	9,56	9,01	7,54
Water flow rate	(1) l/h	364	343	311	621	582	522	460	434	356	838	790	662
Pressure drops	(1) kPa	8	8	6	6	6	5	10	9	6	17	14	11
Cooling Performance													
Total cooling capacity	(3) kW	5,63	5,18	4,44	5,63	5,18	4,44	10,37	9,94	8,17	11,81	10,85	8,05
Sensible cooling capacity	(3) kW	3,82	3,51	3,02	3,82	3,51	3,02	7,29	6,76	5,36	7,91	7,26	5,49
Water flow rate	(3) l/h	968	891	763	968	891	763	1830	1709	1406	2032	1779	1384
Pressure drops	(3) kPa	36	31	23	36	31	23	49	44	31	39	31	20
Water content std. coil	l	/			/			/			/		
Water content additional coil	l	/			/			/			/		
Fans													
Fan	type/n°	centrifugal/4			centrifugal/4			centrifugal/6			centrifugal/6		
Air flow rate	m³/h	825	750	640	825	750	640	1650	1500	1138	1650	1500	1138
High static pressure	Pa	60	50	37	60	50	37	60	50	29	60	50	29
Sound data													
Sound power level (inle+radiator)	(4) dB(A)	58	56	52	58	56	52	62	60	40	62	60	40
Sound power level (outlet)	dB(A)	54	52	48	54	52	48	58	56	36	58	56	36
Diameter connections													
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features													
Absorbed power	W	72	53	38	72	53	38	153	120	66	153	120	66
Max. input current	A												
Signal 0-10V		9V	8,2V	7V	9V	8,2V	7V	9V	8,2V	6,2V	9V	8,2V	6,2V
Power supply	V/ph/Hz	230V~50Hz											

H max. speed; M med. speed; L min. speed

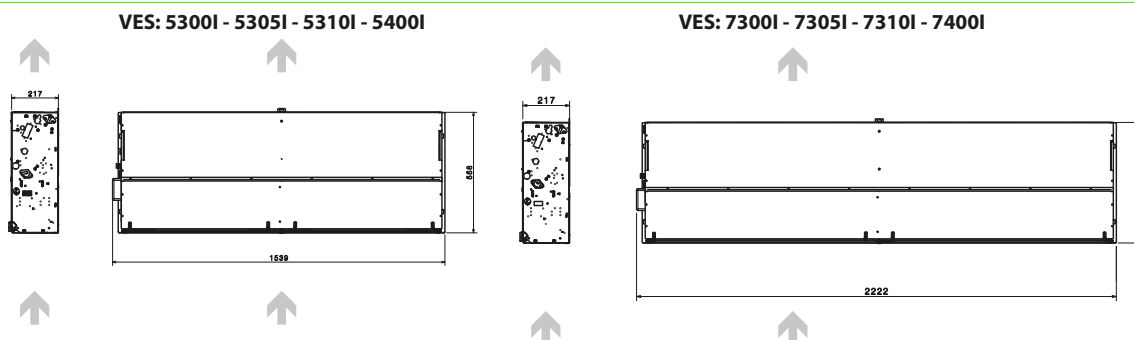
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;

(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

## Dimensions (mm)



VES I		5300	5305	5310	5400	7300	7305	7310	7400
Weight	kg	72	53	38	72	53	38	153	120

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



Aermec participate in the EUROVENT program: FCH the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



### Features

- VEC:** Fan coil for ambient air treatment during the summer. The air is delivered into the room via vents which, thanks to the COANDA effect, make the air jet adhere to the ceiling.
- Installation in false ceilings
- Compatible with VMF System
- Grille with suction and adjustable delivery vents with Coanda effect (compulsory accessory).
- 3-row coil
- Reduced pressure drops across heat exchangers
- For systems with fixed and variable delivery
- EUROVENT certified
- 3-speed fan unit
- Quiet operation
- Motors with permanently connected condensers
- Air filter easily removed and cleaned
- Internal insulation and air filter of Class 1 fire resistance
- Removable shrouds for easy, effective cleaning
- Reversibility of the water connections during installation
- Broad range of controls and accessories
- Easy installation and maintenance
- Full compliance with safety regulations
- For possible heat mode functioning, refer to the technical manual notes.

### Accessoires

#### Compulsory accessories:

the following are essential for the functioning of the units:

- VEC\_GL:** air suction and delivery grille with adjustable Coanda-effect vents. White RAL 9010.

#### Accessories:

- AMP:** kit for wall-mounting installation.
- BC5:** auxiliary condensate drain tray.
- BV:** Single row hot water coil.
- DSC4:** condensate drainage device for use when natural run-off is not possible.
- SIT 3-5:** thermostat interface cards. These allow you to create a network of fan coils (max. 10), commanded from a centralised panel (selector or thermostat).
- SIT3:** commands the 3 fan speeds, and must be installed on each fan coil in the network; receives the commands from the selector or SIT5 card.
- SIT5:** commands the 3 fan speeds and up to 2 valves (4-pipe systems); conveys the thermostat commands to

the fan coil network.

- SW3:** water temperature probe, allowing the implementation of automatic season changeover for those electronic thermostats equipped with water side changeover.
- SWA:** SWA external probe accessory (length L = 6m). Detects the ambient air temperature if connected to the connector (A) of the panel FMT21; in this case the ambient air temperature probe built into the panel will be automatically disabled. Detects the temperature of the water in the system to allow ventilation consent if connected to the connector (W) of the panel FMT21. Two SWA probes may be simultaneously connected to the panel FMT21.
- VCF:** kit consisting of a 3-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.
- VCFD:** Kit consisting of a 2-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils

(BV). Versions with 230V and 24V~50Hz power supply.

- Control panel and VMF system:** the features of the control panels are described in the relevant card.

#### Accessoires for heating mode

- RX:** Armoured electric coil with safety thermostat. (Requires a thermostat with heater management).
- PXAR:** Electronic thermostat with thermostated or continuous ventilation.
- PCR1:** Galvanised plate protection for the controls and the electrical element
- BV:** Single row hot water coil.
- VCF:** the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper. For 3-row.
- VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes. For 3 row

VEC (Standard coil)	20	30	40	50
VEC (increased coil)	24	34	44	54
Compulsory accessoires				
VEC20GL	.			
VEC30GL		.		
VEC40GL			.	.

BC5	.	.	.	.
DSC4	(1)	.	.	.
SIT3	.	.	.	.
SIT5	.	.	.	.
SW3	.	.	.	.
SWA	.	.	.	.
VCF41 (standard coil)	.	.	.	.
VCF42 (increased coil)	.	.	.	.
VCF4224 (standard coil)	.	.	.	.
VCF4224 (increased coil)	.	.	.	.
VCFD1 (standard coil)	.	.	.	.
VCFD2 (increased coil)	.	.	.	.
VCFD124 (standard coil)	.	.	.	.

VEC (Standard coil)	20	30	40	50
VEC (increased coil)	24	34	44	54
Control panel				
FMT10	.	.	.	.
FMT21	.	.	.	.
KTLP	.	.	.	.
PX2	.	.	.	.
PX2C6*	.	.	.	.
PX	.	.	.	.
PXAE	.	.	.	.
TPF	.	.	.	.
TF1	.	.	.	.
WMT05	.	.	.	.
WMT06	.	.	.	.
WMT10	.	.	.	.
VMF-System				
VMF-E4 / E4D	.	.	.	.
VMF-E0 / E1	.	.	.	.
VMF-E5B / E5N	.	.	.	.

VEC (Standard coil)	20	30	40	50
VEC (increased coil)	24	34	44	54
VMF-SW	.	.	.	.
VMF-SW1	.	.	.	.
Accessoires for heating mode				
RX22 (2)	.			
RX32 (2)		.		
RX42 (2)			.	
RX52 (2)				.
PXAR (2)	.	.	.	.
PCR1 (2)	.	.	.	.
BV122 (2)(3)	.			
BV132 (2)(3)		.		
BV142 (2)(3)			.	.
VCF44 (2)(4)	.	.	.	.
VCF4424 (2)(4)	.	.	.	.
VCFD4 (2)(4)	.	.	.	.
VCFD424 (2)(4)	.	.	.	.

(1) DSC4 The accessory is not compatible with the basins BC5, and VMF system.

(2) For the Heating mode read the notes and warnings in the technical booklet.

(3) Available only unit 20 - 30 - 40 - 50

(4) Accessoires only for coil addition (BV)

PX2C6, PX2 panel in multiple 6-piece pack, for only wall installation

## Technical data

VEC		20			24			30			34			40			44			50			54			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L				
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,10	2,54	1,87	3,42	2,50	2,07	4,31	3,64	3,03	6,14	5,18	4,31	6,29	5,21	4,21	8,07	6,68	5,41	7,16	6,34	4,76	9,18	8,08	6,06
Water flow rate	(1)	l/h	272	223	164	300	219	181	378	319	266	538	454	378	551	457	369	708	586	474	628	556	417	805	709	532
Pressure drops	(1)	kPa	6	4	2	3	2	1	17	13	9	9	7	5	12	9	6	19	14	9	14	11	7	19	15	9
Heating capacity (45°C)	(2)	kW	1,54	1,27	0,93	1,70	1,24	1,03	2,14	1,81	1,51	3,05	2,57	2,15	3,13	2,59	2,09	4,02	3,32	2,69	3,56	3,15	2,37	4,57	4,02	3,02
Water flow rate	(2)	l/h	268	220	161	295	215	178	372	314	262	530	447	372	543	450	363	697	577	467	618	547	411	792	697	523
Pressure drops	(2)	kPa	6	4	2	3	2	1	17	12	9	9	7	5	12	9	6	19	13	9	14	11	7	18	15	9
Cooling Performance																										
Total cooling capacity	(3)	kW	1,32	1,09	0,81	1,52	1,08	0,88	1,95	1,64	1,37	2,47	2,14	1,79	2,99	2,47	1,99	3,91	3,34	2,55	3,61	3,17	2,35	4,28	4,00	3,00
Sensible cooling capacity	(3)	kW	1,08	0,88	0,64	1,15	0,80	0,67	1,53	1,28	1,05	1,78	1,51	1,26	2,41	1,98	1,58	2,74	2,42	1,91	2,59	2,27	1,68	2,91	2,44	1,79
Water flow rate	(3)	l/h	227	187	138	262	185	151	335	282	236	425	368	308	513	425	341	672	574	439	621	545	404	737	688	515
Pressure drops	(3)	kPa	5	3	2	3	2	1	13	10	7	8	6	5	11	8	5	22	17	10	15	12	7	30	27	16
Fans																										
Fan - Centrifugal	n°	1			1			2			2			2			2			2			2			
Air flow rate	m³/h	247	194	130	247	194	130	383	309	241	383	309	241	511	406	306	511	406	306	613	529	371	613	529	371	
Sound data																										
Sound power level	(4)	dB(A)	48	42	35	48	39	35	49	43	37	49	43	37	57	43	30	57	43	30	67	46	34	67	46	34
Sound pressure level		dB(A)	40	34	27	40	31	27	41	35	29	41	35	29	49	35	22	49	35	22	59	38	26	59	38	26
Diameter connections																										
Standard coil	Ø	1/2"			1/2"			1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			
Additional coil	Ø	/			/			/			/			/			/			/			/			
Increased coil	Ø	/			/			/			/			/			/			/			/			
Electrical Features																										
Absorbed power	W	25	22	19	25	22	19	44	33	25	44	33	25	57	43	30	57	43	30	67	46	34	67	46	34	
Max. input current	A	0,12			0,12			0,21			0,21			0,28			0,28			0,35			0,35			
Electrical wiring		V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply		230V~50Hz																								

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

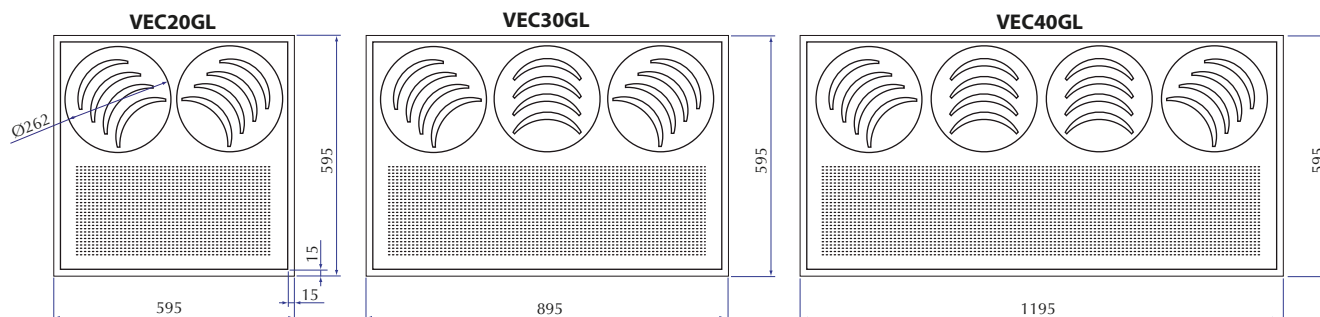
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Dimensions (mm)

### VEC\_GL (Compulsory accessory)



### Dimensions VEC + VEC\_GL (maximum dimensions)

Mod.	VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
B	mm	595	895	1195	1195
C	mm	595	595	595	595
Weight (VEC)	kg	15,5	20,6	24,7	24,7
Weight (VEC_GL)	kg	3,7	5,7	7	7

### Dimensions VEC + VEC\_GL (Dimensions for installation)

Mod.	VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
D	mm	574	574	574	574
E	mm	574	874	1174	174

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

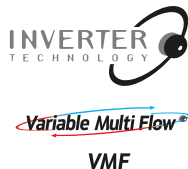
**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## VEC\_I

Cassette type fancoil Coanda-effect, with Brushless Inverter motor (EC)  
Installation in false ceilings



Aermec  
participate in the EUROVENT program: FCH  
the products are present on the site  
www.eurovent-certification.com



### Features

- VEC\_I:** Fan coil for ambient air treatment during the summer. The air is delivered into the room via vents which, thanks to the COANDA effect, make the air jet adhere to the ceiling.
- Installation in false ceilings
- Compatible with VMF System
- Grille with suction and adjustable delivery vents with Coanda effect (compulsory accessory).
- Unit with standard coil (20÷50)
- Unit with increased coil (24÷54)
- Reduced pressure drops across heat exchangers
- For systems with fixed and variable delivery
- Fan unit with Brushless motor (continuous 0-100% speed variation)
- Quiet operation
- Air filter easily removed and cleaned
- Internal insulation and air filter of Class 1 fire resistance
- Reversibility of the water connections during installation
- Broad range of controls and accessories
- Easy installation and maintenance
- Full compliance with safety regulations
- For possible heat mode functioning, refer to the technical manual notes.

### Accessori

#### Compulsory accessories:

the following are essential for the functioning of the units:

- VEC\_GL:** air suction and delivery grille with adjustable Coanda-effect vents. White RAL 9010.

#### Accessories:

- BC5:** auxiliary condensate drain tray.
- BV:** Single row hot water coil.
- DSC4:** condensate drainage device for use when natural run-off is not possible.
- VCF:** kit consisting of a 3-way motorised valve,

and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.

- VCFD:** Kit consisting of a 2-way motorised valve, and copper couplings and pipes. For 3-row and 1-row coils (BV). Versions with 230V and 24V~50Hz power supply.

- Control panel and VMF System:** the characteristics are described on the appropriate card.

#### Accessories for heating mode

- BV:** Single row hot water coil.
- VCF:** the kit contains a motorised 3-way valve with insulating shell, plus coupling and pipes in insulated copper Versions with 230V and 24V~50Hz power supply.
- VCFD:** Kit consisting of powered 2-way valve, copper couplings and pipes. For 3 row. Versions with 230V and 24V~50Hz power supply.

VEC_I (standard coil)	20	30	40	50
VEC_I (increased coil)	24	34	44	54
<b>Compulsory accessories</b>				
VEC20GL	.			
VEC30GL		.		
VEC40GL			.	.
<b>Accessories</b>				
BC5	.	.	.	.
DSC4 (1)	.	.	.	.
VCF41 (standard coil)	.	.	.	.
VCF42 (increased coil)	.	.	.	.
VCF4124 (standard coil)	.	.	.	.
VCF4224 (increased coil)	.	.	.	.

VEC_I (standard coil)	20	30	40	50
VEC_I (increased coil)	24	34	44	54
VCFD1 (standard coil)	.	.	.	.
VCFD2 (increased coil)	.	.	.	.
VCFD124 (standard coil)	.	.	.	.
VCFD224 (increased coil)	.	.	.	.
<b>Control panel</b>				
WMT20	.	.	.	.
<b>VMF-System</b>				
VMF-E4 / E4D	.	.	.	.
VMF-E18	.	.	.	.
VMF-E5B / E5N	.	.	.	.

VEC_I (standard coil)	20	30	40	50
VEC_I (increased coil)	24	34	44	54
<b>Accessories for heating mode</b>				
VMF-SW	.	.	.	.
VMF-SW1	.	.	.	.
<b>Accessory dedicated to heating mode</b>				
BV122	(2)(3)	.		
BV132	(2)(3)	.		
BV142	(2)(3)	.	.	.
VCF44	(2)(4)	.	.	.
VCF4424	(2)(4)	.	.	.
VCFD4	(2)(4)	.	.	.
VCFD424	(2)(4)	.	.	.

(1) DSC4 The accessory is not compatible with the basins BC5, and VMF system.

(2) See notes and warnings in the technical booklet.

(3) Available only unit 20 - 30 - 40 - 50

(4) Accessoires only for coil additioning (BV)

## Technical data

VEC I		20			24			30			34			40			44			50			54			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L				
Heating Performance																										
2 pipe configuration																										
Heating capacity (70°C)	(1)	kW	3,10	2,54	1,87	3,42	2,50	2,07	4,31	3,64	3,03	6,14	5,18	4,31	6,29	5,21	4,21	8,07	6,68	5,41	7,16	6,34	4,76	9,18	8,08	6,06
Water flow rate	(1)	l/h	272	223	164	300	219	181	378	319	266	538	454	378	551	457	369	708	586	474	628	556	417	805	709	532
Pressure drops	(1)	kPa	6	4	2	3	2	1	17	13	9	9	7	5	12	9	6	19	14	9	14	11	7	19	15	9
Heating capacity (45°C)	(2)	kW	1,54	1,27	0,93	1,70	1,24	1,03	2,14	1,81	1,51	3,05	2,57	2,15	3,13	2,59	2,09	4,02	3,32	2,69	3,56	3,15	2,37	4,57	4,02	3,02
Water flow rate	(2)	l/h	268	220	161	295	215	178	372	314	262	530	447	372	543	450	363	697	577	467	618	547	411	792	697	523
Pressure drops	(2)	kPa	6	4	2	3	2	1	17	12	9	9	7	5	12	9	6	19	13	9	14	11	7	18	15	9
Cooling Performance																										
Total cooling capacity	(3)	kW	1,32	1,09	0,81	1,52	1,08	0,88	1,95	1,64	1,37	2,47	2,14	1,79	2,99	2,47	1,99	3,91	3,34	2,55	3,61	3,17	2,35	4,28	4,00	3,00
Sensible cooling capacity	(3)	kW	1,08	0,88	0,64	1,15	0,80	0,67	1,53	1,28	1,05	1,78	1,51	1,26	2,41	1,98	1,58	2,74	2,42	1,91	2,59	2,27	1,68	2,91	2,44	1,79
Water flow rate	(3)	l/h	227	187	138	262	185	151	335	282	236	425	368	308	513	425	341	672	574	439	621	545	404	737	688	515
Pressure drops	(3)	kPa	5	3	2	3	2	1	13	10	7	8	6	5	11	8	5	22	17	10	15	12	7	30	27	16
Fans																										
Fan - Centrifugal	n°		1			1			2			2			2			2			2			2		
Air flow rate	m³/h		247	194	130	247	194	130	383	309	241	383	309	241	511	406	306	511	406	306	613	529	371	613	529	371
Sound data																										
Sound power level	(4)	dB(A)	48	42	35	48	39	35	49	43	37	49	43	37	57	43	30	57	43	30	67	46	34	67	46	34
Sound pressure level		dB(A)	40	34	27	40	31	27	41	35	29	41	35	29	49	35	22	49	35	22	59	38	26	59	38	26
Diameter connections																										
Standard coil	Ø		1/2"			1/2"			1/2"			1/2"			3/4"			3/4"			3/4"			3/4"		
Additional coil	Ø		/			/			/			/			/			/			/			/		
Increased coil	Ø		/			/			/			/			/			/			/			/		
Electrical Features																										
Absorbed power	W		12	8	5	12	8	5	10	10	10	10	10	10	17	9	6	17	9	6	37	20	8	37	20	8
Max. input current	A		0,11			0,11			0,11			0,11			0,14			0,14			0,3			0,3		
Signal 0-10V	%		90	70	48	90	70	48	90	66	58	90	66	58	90	72	54	90	72	54	90	78	56	90	78	56
Power supply			230V~50Hz																							

H max. speed; M med. speed; L min. speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

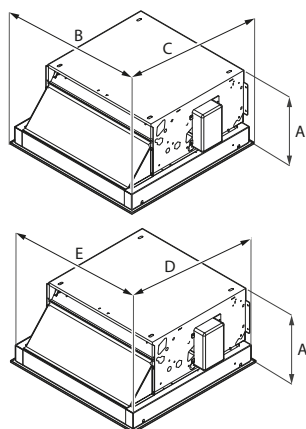
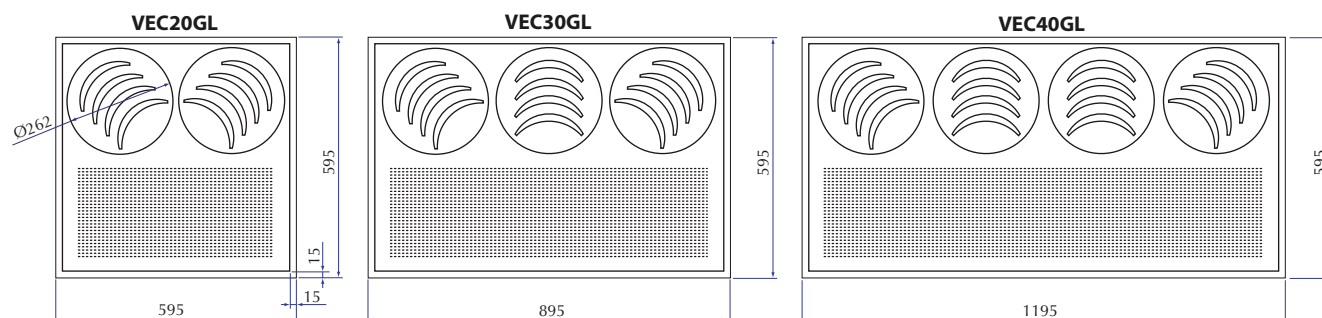
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(4) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=100m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Dimensions (mm)

### VEC\_GL (Compulsory accessory)



### Dimensions VEC\_I + VEC\_GL (maximum dimensions)

Mod.	VEC_I VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
B	mm	595	895	1195	1195
C	mm	595	595	595	595
Weight (VEC_I)	kg	15,5	20,6	24,7	24,7
Weight (VEC_GL)	kg	3,7	5,7	7	7

### Dimensions VEC\_I + VEC\_GL (Dimensions for installation)

Mod.	VEC_I VEC	20/24 20GL	30/34 30GL	40/44 40GL	50/54 40GL
A	mm	283	283	283	283
D	mm	574	574	574	574
E	mm	574	874	1174	174

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# FCL

## Cassette type fan coil Ceiling and false ceiling installation, cooling power from 1900 up to 11000W

Models:  
FCL 32, FCL36, FCL42, FCL62 - FCL72  
FCL 34, FCL38, FCL44, FCL64

Models:  
FCL 82, FCL102, FCL122  
FCL 84, FCL104, FCL124



Aermec participate in the EUROVENT program: FCH the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



VMF



GLL10 - GLL10M - GLL10R - GLL10N  
White: RAL 9010



GLL20 - GLL20R - GLL20N  
White: RAL 9010



Remote Control included for GLL10M  
GLL10R - GLL20R

FCL with accessory FCLMC



FCLMC  
White: RAL 9010

- **STANDARD INTERNAL 3-WAY VALVE**
- **VERSION WITH 2-WAY VALVE FOR VARIABLE WATER FLOW RATE SYSTEMS**
- **VERSIONS WITHOUT VALVES**
- **FAN PURPOSELY DESIGNED FOR LOW SOUND EMISSIONS**
- **VERSIONS FOR 2-PIPE AND 4-PIPE SYSTEMS**
- **ALSO AVAILABLE WITH ELECTRIC HEATER FOR HEATING**

### Features

- 8 sizes for 2-pipe versions:  
FCL 32-36-42-62-72-82-102-122
- 7 sizes for 4-pipe versions:  
FCL 34-38-44-64-84-104-124
- Standard preparation with standard internal three-way valve, with fast connection actuator and position visual signalling.
- FCL\_V2 preparation (available upon request), with internal two-way valve, suitable for variable water flow rate systems.
- FCL\_VL preparation (available upon request), without internal valve.
- 3 configurations on one cassette-type fan coil:
  - louvers that can be oriented by means of a remote control and electronic control if coupled with the accessory GLL10M;
  - with remote control, louvers that can be oriented manually and by means of electronic control if coupled with the accessory GLL10R or GLL20R;
  - with louvers that can be oriented manually if coupled with the accessory GLL10 or GLL20, also requires a wired control panel (accessory).
- High design aesthetics.
- Grille dimensions perfectly integrable in standard suspended ceiling panels of 600x600mm and 840x840mm for the most powerful units.
- Fan designed for low sound emissions.
- 3-speed and 4-speed mixed flow (axial + centrifugal) fan unit for larger sizes (FCL 42-44-62-64-72-82-84-102-104-122-124), in order to select the 3 speeds that best meet delivered power and quiet operation requirements.
- The load-bearing structure, reinforced with a galvanised steel side band, contains insulation elements in expanded polystyrene obtained from injection moulding for purposes of noise reduction and air routing (FCL 42-44-62-72-64).
- Structure made entirely of galvanised steel, containing insulation elements in closed cell expanded polystyrene and externally covered with anti-condensate felt (FCL 82-84-102-104-122-124).
- Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.
- Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.
- Continuous fan operation to prevent stratification of room air.
- Possibility of direct release of external air regardless of indoor unit ventilation.
- Possibility to control the climate of adjacent rooms as well. The versions FCL 82-84-102-104-122-124 allow 3-direction delivery.
- Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).
- Electrostatically pre-charged air filter regenerated with fire resistance class 2 (UL 900), (FEL 10 accessory for GLL10, GLL10R, GLL10M).
- Full compliance with safety regulations.
- Easy installation and maintenance.

## Accessories

### Compulsory GLL accessories, essential for unit operation:

- **GLL10M (600x600)**  
Delivery grille with adjustable louvers by means of a remote control and air intake, supplied with an infra-red receiver with emergency operation switch. White RAL 9010.
- **GLL10R (600x600) / GLL20R (840x840)**  
Delivery grille with louvers manually adjustable and air intake. With remote control, supplied with an infra-red receiver with emergency operation switch. White RAL 9010.
- **GLL10 (600x600) / GLL20 (840x840)**  
Delivery grille with louvers manually adjustable and air intake. Combined with wall-mounted control panel. White RAL 9010.
- **GLL10N (600x600) / GLL20N (840x840)**  
Delivery grille with Manually adjustable fins and air intake, with "VMF System" advanced electronic thermostat. Individual units, or network master also requires a wired control panel (**VMF-E4 compulsory accessory**). White RAL 9010.

### Control panel

A range of dedicated controllers, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

### Probes and accessory for control panels

- **SW3**: water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over

- **SW4**: Minimum water temperature probe, to be used with the units fitted with a grille with remote control. **Compulsory with GLL\_M, GLL\_R, GLL\_N**
- **SWA**: external probe accessory (length = 6m). The probe detects the temperature of the ambient air if connected to the connector (A) on panel FMT21; the ambient air temperature probe incorporated in the panel is automatically deactivated. Detects the temperature of the water in the system, for ventilation consent, if connected to the connector (W) of the FMT21 panel. Two SWA probes can be simultaneously connected to the panel FMT21.
- **SIT 3 - 5**: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).  
SIT3: commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card.  
SIT5: commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

### VMF system

- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.

### Electrical heater

- **RXLE - RXLE20**: electric heater for heating, can be installed on the single-fan FCL units. **Requires GLL-M or GLL-R.**

### Valve kit

- **VHL1 - VHL20**: motor-driven three-way valve for the heating battery in 4-pipe systems. **Obligatory accessory in 4-pipe systems.**
- **VHL2 - VHL22**: motor-driven two-way valve for the heating battery in 4-pipe systems. **Obligatory accessory in 4-pipe systems with variable flow rates.**

### Accessory for Installation

- **FEL10**: kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).
- **KFL**: Delivery flange, allowing the air to be directed to an adjacent room.
- **KFL20**: delivery flange, allowing the air to be directed to an adjacent room. **Up to three KFL20 can be assembled on a single unit.**
- **KFLD**: suction flange, allows to introduce external air directly into the room without mixing.
- **KFLD20**: suction flange, allows to introduce external air directly into the room without mixing. **Up to two KFLD20 can be assembled on a single unit.**
- **FCLMC10 / FCLMC20**  
is a perimeter case in galvanised and painted sheet steel, which is used when the fan coil is installed outside the suspended ceiling. **It is used for aesthetics and protection, therefore the technical features of the FCL remain unvaried.**

For more details on the control panels and VMF system refer to the dedicated sheet

FCL		32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
COMPULSARY GLL ACCESSORIES, ESSENTIAL FOR UNIT OPERATION:																
GLL10		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10M		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10R		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL10N		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
GLL20		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
GLL20R		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
GLL20N		-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
Probes and accessories for control panels																
PX-PX2-PX2C6*	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TPF	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT10	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FMT21	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SWA	(1)	In combination with FMT21														
SW3	(1)	In combination with PXAE														
SIT3	(1)	In combination with FMT21 or PXAE o PX2 or PX or PX2C6 WMT10														
SIT5	(1)	In combination with FMT21 or PXAE														
SW4	(2)															
VMF System																
VMF-E4	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Electrical Heat Exchanger																
RXLE	(2)	•	-	•	-	•	-	•	-	•	-	-	-	-	-	-
RXLE20	(2)	-	-	-	-	-	-	-	-	-	•		•		•	
Water valves																
3 way valve kit for 4 pipe systems																
VHL1		-	•	-	•	-	•	-	•	-	-	-	-	-	-	-
VHL20		-	-	-	-	-	-	-	-	-	-	•	-	•	-	•
2 way valve kit for 4 pipe systems																
VHL2		-	•	-	•	-	•	-	•	-	-	-	-	-	-	-
VHL22		-	-	-	-	-	-	-	-	-	-	•	-	•	-	•
Installation accessories																
FEL10		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFL		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFL20	(4)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
KFLD		•	•	•	•	•	•	•	•	•	-	-	-	-	-	-
KFLD20	(4)	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•
Perimeter case																
FCLMC10		•	•	•	•	•	•	•	•	•						
FCLMC20											•	•	•	•	•	•

(1) Accessories that can only be used in combination with GLL10 and GLL20 grilles.

(2) Compulsory with GLL\_M, GLL\_R, GLL\_N

(3) Accessories that can only be used in combination with the GLL10N and GLL20N grilles for individual units or network master

(4) A maximum of three KFL20 / KFLD20 can be assembled on a single unit

\* PX2C6, PX2 panel in multiple 6-piece pack, **for only wall installations**

FCL			32			34			36			38			42			44			62			64				
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L					
Heating Performance																												
2 pipe configuration																												
Heating capacity (70°C)		(1)	kW	4,00	2,95	2,22	/	/	/	6,27	4,50	3,42	/	/	/	7,34	4,47	3,32	/	/	/	10,49	6,37	5,19	/	/	/	
Water flow rate		(1)	l/h	350	258	194	/	/	/	549	394	300	/	/	/	642	391	290	/	/	/	918	558	454	/	/	/	
Pressure drops		(1)	kPa	10	6	4	/	/	/	19	10	6	/	/	/	24	10	6	/	/	/	42	17	12	/	/	/	
Heating capacity (45°C)		(2)	kW	1,99	1,47	1,10	/	/	/	3,12	2,24	1,70	/	/	/	3,65	2,23	1,65	/	/	/	5,22	3,17	2,58	/	/	/	
Water flow rate		(2)	l/h	345	254	192	/	/	/	541	389	295	/	/	/	633	386	287	/	/	/	905	550	448	/	/	/	
Pressure drops		(2)	kPa	10	6	4	/	/	/	19	10	6	/	/	/	23	10	6	/	/	/	41	17	11	/	/	/	
4 Pipe configuration with Additional Heat Exchanger																												
Heating capacity (65°C)		(3)	kW	/	/	/	2,32	1,96	1,74	/	/	/	2,32	1,96	1,74	/	/	/	2,74	2,04	1,75	/	/	/	3,19	2,51	2,21	
Water flow rate		(3)	l/h	/	/	/	203	171	152	/	/	/	203	171	152	/	/	/	240	178	153	/	/	/	279	219	194	
Pressure drops		(3)	kPa	/	/	/	9	7	5	/	/	/	9	7	5	/	/	/	12	7	5	/	/	/	19	12	10	
Cooling Performance																												
Total cooling capacity		(4)	kW	1,90	1,47	1,16	1,90	1,47	1,16	3,00	2,25	1,79	2,77	2,08	1,65	3,95	2,54	1,96	3,64	2,30	1,83	4,98	3,21	2,66	4,61	2,96	2,46	
Sensible cooling capacity		(4)	kW	0,99	1,25	1,52	1,52	1,25	0,99	2,40	1,78	1,39	2,24	1,66	1,30	3,16	1,82	1,38	2,91	1,62	1,30	3,81	2,24	1,87	3,53	2,08	1,73	
Water flow rate		(4)	l/h	327	253	200	327	253	200	516	387	308	476	358	284	679	437	337	626	396	314	856	551	458	793	510	424	
Pressure drops		(4)	kPa	11,7	7,4	4,8	12,7	8	5,2	7,6	11,5	19,3	18,7	11,2	7,4	32,4	14,7	9,2	31,7	13,9	9,2	47,8	21,6	15,5	50,3	22,7	16,3	
Fans																												
Fan - Centrifugal		n°			1																							
Air flow rate		m³/h			600	410	300	600	410	300	600	410	300	600	410	300	700	360	260	700	360	260	880	500	380	880	500	380
Sound data																												
Sound power level		(5)	dB(A)		46	38	35	46	38	35	46	38	35	46	38	35	53	39	35	53	39	35	61	47	41	61	47	41
Sound pressure level		dB(A)			37	29	26	37	29	26	37	29	26	37	29	26	44	30	26	44	30	26	52	38	32	52	38	32
Diameter connections																												
Standard coil		Ø		3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			
Additional coil		Ø		/			1/2"			/			1/2"			/			1/2"			/			1/2"			
Increased coil		Ø		/			/			/			/			/			/			/			/			
Electrical Features																												
Absorbed power		W		45	31	21	45	31	21	45	31	21	45	31	21	75	32	22	75	32	22	83	37	26	83	37	26	
Max. input current																												

PCL			72			82			84			102			104			122			124		
Fan speed			H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L			
Heating Performance																							
2 pipe configuration																							
Heating capacity (70°C)	(1)	kW	11,32	7,57	6,14	11,88	8,12	5,88	/	/	/	17,73	11,71	8,30	/	/	/	21,75	14,73	10,53	/	/	/
Water flow rate	(1)	l/h	991	662	538	1039	710	514	/	/	/	1551	1025	726	/	/	/	1903	1289	921	/	/	/
Pressure drops	(1)	kPa	42	20	14	26	13	7	/	/	/	25	12	6	/	/	/	42	21	11	/	/	/
Heating capacity (45°C)	(2)	kW	5,63	3,77	3,06	5,91	4,04	2,92	/	/	/	8,82	5,83	4,13	/	/	/	10,82	7,33	5,24	/	/	/
Water flow rate	(2)	l/h	977	654	530	1025	701	507	/	/	/	1530	1011	716	/	/	/	1877	1271	909	/	/	/
Pressure drops	(2)	kPa	41	20	13	25	13	7	/	/	/	25	12	6	/	/	/	41	20	11	/	/	/
4 Pipe configuration with Additional Heat Exchanger																							
Heating capacity (65°C)	(3)	kW	/	/	/	/	/	/	7,59	5,72	4,74	/	/	/	8,93	6,53	5,27	/	/	/	11,17	8,31	6,30
Water flow rate	(3)	l/h	/	/	/	/	/	/	664	500	414	/	/	/	782	571	461	/	/	/	977	727	551
Pressure drops	(3)	kPa	/	/	/	/	/	/	12	7	5	/	/	/	16	9	6	/	/	/	25	14	9
Cooling Performance																							
Total cooling capacity	(4)	kW	5,45	3,32	2,81	6,00	4,04	2,80	6,00	4,04	2,80	9,00	5,89	4,05	7,20	4,91	3,50	11,00	7,51	5,36	8,80	6,21	4,57
Sensible cooling capacity	(4)	kW	4,10	2,34	1,90	4,20	2,76	1,90	4,20	2,76	1,90	6,66	4,29	2,94	5,30	3,53	2,48	8,47	5,74	4,04	6,77	4,67	3,37
Water flow rate	(4)	l/h	938	571	484	1032	695	482	1032	695	482	1547	1012	697	1238	845	602	1893	1292	921	1513	1068	786
Pressure drops	(4)	kPa	57	23,3	17,3	34,7	17	8,8	31,7	15,6	8,1	43	20	10,2	35,6	17,9	9,7	60,1	30,2	16,4	52,3	28	16,1
Fans																							
Fan - Centrifugal	n°	1																					
Air flow rate	m³/h	900	520	400	1100	680	460	1100	680	460	1350	830	560	1350	830	560	1750	1100	750	1750	1100	750	
Sound data																							
Sound power level	(5)	dB(A)	60	49	44	50	43	39	50	43	39	54	45	40	54	45	40	60	50	44	60	50	44
Sound pressure level		dB(A)	51	40	35	41	34	30	41	34	30	45	36	31	45	36	31	51	41	35	51	41	35
Diameter connections																							
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			
Additional coil	Ø	/			/			1/2"			/			1/2"			/			1/2"			
Increased coil	Ø	/			/			/			/			/			/			/			
Electrical Features																							
Absorbed power	W	110	58	50	150	80	45	150	80	45	155	80	50	155	80	50	175	105	55	175	105	55	
Max. input current	A	0,52			0,70			0,70			0,70			0,70			0,75			0,75			
Electrical wiring		V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	V4	V2	V1	
Power supply	V/ph/Hz	230V~50Hz																					

- (1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
- (2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)
- (3) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)
- (4) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

Sound pressure level (A-weighted) measured in the room with volume  $V=100 \text{ m}^3$ , reverberation time  $t = 0.5 \text{ s}$ ; Direction factor  $Q = 2$ ; Distance  $r = 2.5 \text{ m}$

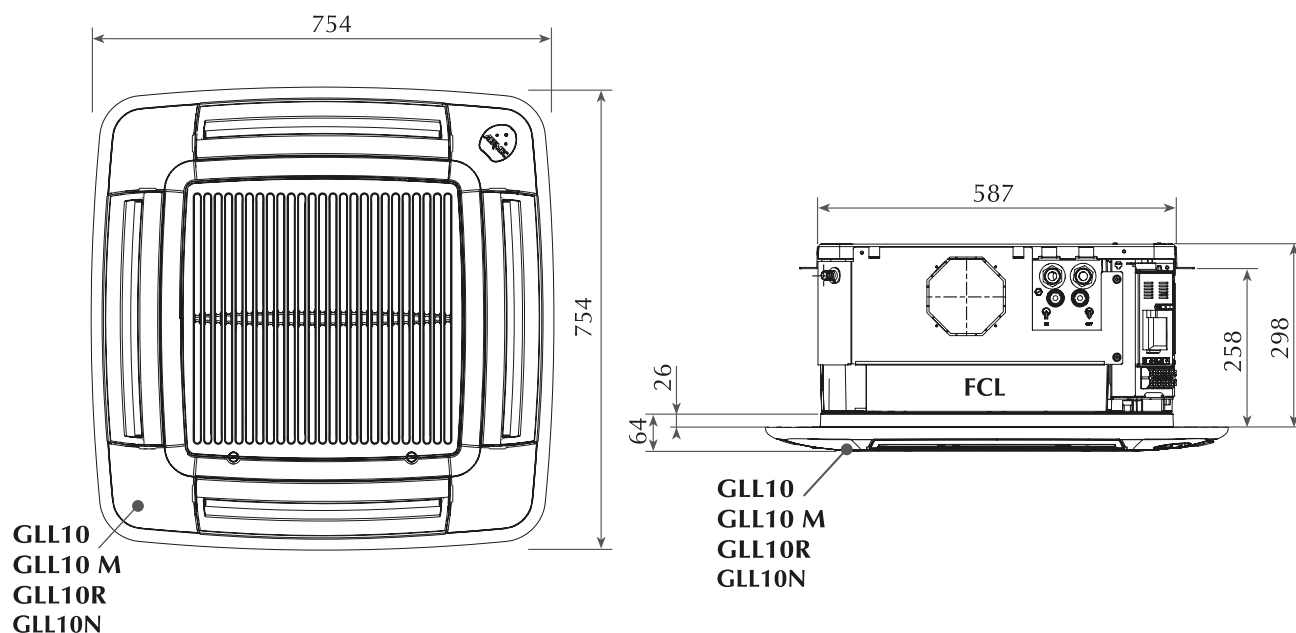


## Dimensions (mm)

FCL 32 - 34 - 36 - 38 - 42 - 44 - 62 - 64 - 72

FCL 32 V2 - 34 V2 - 36 V2 - 38 V2 - 42 V2 - 44 V2 - 62 V2 - 64 V2 - 72 V2

FCL 32 VL - 34 VL - 36 VL - 38 VL - 42 VL - 44 VL - 62 VL - 64 VL - 72 VL



Mod. FCL		32	34	36	38	42	44	62	64	72
Weight	kg	20,5	21	20,5	21	20,5	21	22	22,5	22,5

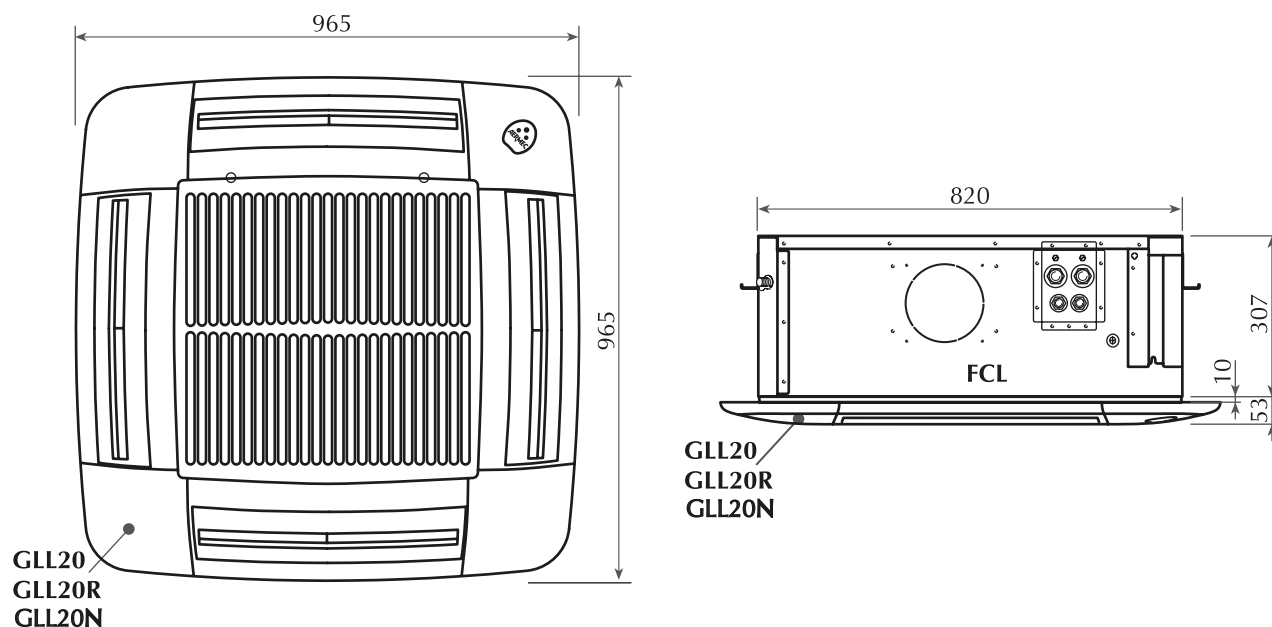
Mod. FCL		32 V2	34 V2	36 V2	38 V2	42 V2	44 V2	62 V2	64 V2	72 V2
Weight	kg	20,5	21	20,5	21	20,5	21	21	22,5	22,5

Mod. FCL		32 VL	34 VL	36 VL	38 VL	42 VL	44 VL	62 VL	64 VL	72 VL
Weight	kg	20	20,5	20	20,5	20	20,5	21,5	22	22

FCL 82 - 84 - 102 - 104 - 122 - 124

FCL 82 V2 - 84 V2 - 102 V2 - 104 V2 - 122 V2 - 124 V2

FCL 82 VL - 84 VL - 102 VL - 104 VL - 122 VL - 124 VL



Mod. FCL		82	84	102	104	122	124
Weight	kg	35	36	36	36	36	36

Mod. FCL		82 V2	84 V2	102 V2	104 V2	122 V2	124 V2
Weight	kg	35	36	36	36	36	36

Mod. FCL		32 VL	34 VL	102 VL	104 VL	122 VL	124 VL
Weight	kg	34	35	35	35	35	35

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

Cod.: SFCLUY.13 / 1612

## FCLI

INVERTER  
TECHNOLOGY



Aermec participate in the EUROVENT program: FCH the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable Multi Flow®

VMF

**Cassette-type fancoils with Brushless Inverter motor (EC)**  
**Continuous 0-100% air flow rate regulation**  
**Ceiling and false ceiling installation, cooling power from 1900 up to 11000W**

Models:  
FCLI32, FCLI42, FCLI62  
FCLI34, FCLI44, FCLI64

Models:  
FCLI82, FCLI122, FCLI124



**GLLI10 - GLLI10N**  
White: RAL 9010



**GLLI20 - GLLI20N**  
White: RAL 9010

FCLI with accessory **FCLMC**



**FCLMC**  
White: RAL 9010

- **ENERGY SAVINGS OF 50% COMPARED WITH A FAN COIL WITH TRADITIONAL 3-SPEED MOTOR**
- **VERY QUIET OPERATION**
- **TOTAL COMFORT: REDUCED TEMPERATURE AND HUMIDITY VARIATIONS IN THE AIR-CONDITIONED ROOMS**
- **STANDARD INTERNAL THREE-WAY VALVE, WITH FAST CONNECTION ACTUATOR AND POSITION VISUAL SIGNALLING**
- **VERSION WITH 2-WAY VALVE FOR VARIABLE WATER FLOW RATE SYSTEMS**
- **VERSION WITHOUT VALVES**

### Features

- Fan unit with Brushless motor (Continuous 0-100% speed variation);
- 5 sizes for 2-pipe versions: FCLI 32-42-62-82-122
- 4 sizes for 4-pipe versions: FCLI 34-44-64-124
- Standard preparation with standard internal three-way valve, with fast connection actuator and visual signalling of the position
- FCLI\_V2 preparation (available upon request), with internal two-way valve, suitable for variable water flow rate systems
- FCLI\_VL preparation (available upon request), without internal valve
- Requires matching with the obligatory accessories, grill and control panel, necessary for the operation
- High design aesthetics
- Grille dimensions that can be perfectly incorporated into standard suspended ceiling panel sizes (600x600 mm) and (840X840) for more powerful units.
- Fan for low sound emissions
- EUROVENT certification
- The load-bearing structure, reinforced with a galvanised steel side band, contains insulation elements in expanded polystyrene obtained from injection moulding for purposes of noise reduction and air routing
- The condensation drip tray is in one piece, with V0 self-extinguishing level and joined by means of over-moulding technology to the insulation in expanded polystyrene with flame retardant additive
- Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves
- Possibility of direct release of external air regardless of indoor unit ventilation
- Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with a fire resistance class V0 (UL 94)
- Electrostatically pre-charged air filter regenerated with fire resistance class 2 (UL 900), (FEL 10 accessory)
- Full compliance with the accident prevention standards
- Ease of installation and maintenance

## Accessories

**GLLI compulsory accessories, are indispensable for the operation of the units:**

- **GLLI100 (600x600)**  
Delivery grille with manually adjustable fins and air intake. Requires the combination with a wall-mounted control panel. White RAL 9010.
- **GLLI100N (600x600)**  
Delivery grille without water probe, with manually adjustable fins and air intake, with advanced electronic thermostat "VMF System". **Designed for combination with the electric resistor RXLE accessory and requires a wired control panel (compulsory accessory VMF-E4)** in individual units or network masters. White RAL 9010.
- **GLLI100EH (600x600)**  
Delivery grille with manually adjustable fins and air intake. **Designed for combination with the electric heater RXLE accessory, manageable by an external thermostat, not supplied by Aermec, provided the minimum number of revolutions necessary for the correct operation of the heater is respected.** White RAL 9010.
- **GLLI20 (840x840)**  
Delivery grille with manually adjustable fins and air intake. Requires the combination with a wall-mounted control panel. White RAL 9010.
- **GLLI20N (840x840)**  
Delivery grille without water probe, with manually adjustable fins and air intake, **with advanced electronic thermostat "VMF System"**. The individual units or network masters require a wired control panel (**compulsory accessory VMF-E4**). White RAL 9010.

### Probes and accessories for control panels

A range of dedicated controls, wall-mounted or on the machine, is available but it is essential to choose between these panels for simple and complete tuning, for more details please refer to the dedicated sheet.

#### Probes and accessories for control panels

- **WMT21**: Electronic thermostat with LCD display (wall installation).
- **SWAI**: Water temperature probe for WMT21 control panels. Cable length L=2m
- **SW4**: Water temperature probe for the control of maximum / minimum temperature (2-pipe system) or for the control of minimum temperature in the heating coil (4-pipe system)

#### VMF system

- **VMF-E4**: Wall mounted user interface allowing control via a capacitive touch keyboard.
- **VMF-SW1**: additional water sensor for 4-pipe systems with E1 thermostats offering maximum control in the cooling range.

#### Electrical heater

- **RXLE - RXLE20**: electric heater for heating, can be installed on the single-fan FCLi units. **Requires GLLI100HE or GLLI100N.**

#### Valve kit

- **VHL1 - VHL20**: motor-driven three-way valve for the heating battery in 4-pipe systems. **Obligatory accessory in 4-pipe systems.**
- **VHL2 - VHL22**: motor-driven two-way valve for the heating battery in 4-pipe systems. **Obligatory**

**accessory in 4-pipe systems with variable flow rates.**

#### Accessory for Installation

- **FEL10**: kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).
- **KFL**: Delivery flange, allowing the air to be directed to an adjacent room.
- **KFL20**: delivery flange, allowing the air to be directed to an adjacent room. **Up to three KFL20 can be assembled on a single unit.**
- **KFLD**: suction flange, allows to introduce external air directly into the room without mixing.
- **KFLD20**: suction flange, allows to introduce external air directly into the room without mixing. **Up to two KFLD20 can be assembled on a single unit.**
- **FCLMC10 / FCLMC20**  
is a perimeter case in galvanised and painted sheet steel, which is used when the fan coil is installed outside the suspended ceiling. **It is used for aesthetics and protection, therefore the technical features of the FCL remain unvaried.**
- **FCLMC20IK**: Installation kit for Controller Inverter, compulsory for units with **FCLM20**.

For more details on the control panels and VMF system refer to the dedicated sheet

FCLi	32	34	42	44	62	64	82	122	124
<b>COMPULSARY GLL ACCESSORIES, ESSENTIAL FOR UNIT OPERATION:</b>									
GLLI100	•	•	•	•	•	•	-	-	-
GLLI100N	•	•	•	•	•	•	-	-	-
GLLI100EH	•	•	•	•	•	•	-	-	-
GLLI20	-	-	-	-	-	-	•	•	•
GLLI20N	-	-	-	-	-	-	•	•	•
<b>Probes and accessories for control panels</b>									
WMT21	•	•	•	•	•	•	•	•	•
SWAI	In combination with WMT21								
SW4 (1)	•	•	•	•	•	•	•	•	•
<b>VMF system</b>									
VMF-E4 (1)	•	•	•	•	•	•	•	•	•
VMF-SW1 (1)	•	•	•	•	•	•	•	•	•
<b>Electrical heater</b>									
RXLE (2)	•	-	•	-	•	-	-	-	-
<b>Water valves</b>									
<b>3 way valve kit for 4 pipe systems</b>									
VHL1	-	•	-	•	-	•	-	-	-
VHL20	-	-	-	-	-	-	-	-	•
<b>2 way valve kit for 4 pipe systems</b>									
VHL2	-	•	-	•	-	•	-	-	-
VHL22	-	-	-	-	-	-	-	-	•
<b>Accessories for installation</b>									
FEL10	•	•	•	•	•	•	-	-	-
KFL	•	•	•	•	•	•	-	-	-
KFL20	-	-	-	-	-	-	•	•	•
KFLD	•	•	•	•	•	•	-	-	-
KFLD20	-	-	-	-	-	-	•	•	•
<b>Perimeter Case</b>									
FCLMC10	•	•	•	•	•	•	-	-	-
FCLMC20	-	-	-	-	-	-	•	•	•
FCLMC20IK (3)	-	-	-	-	-	-	•	•	•

(1) Accessory for GLLI\_N

(2) Compulsory with GLLI100HE, GLLI100N

(3) FCLMC20 requires the combination with the FCLMC20IK accessory

## Technical data

FCL I		32			34			42			44			62			64			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Heating Performance																				
2 pipe configuration																				
Heating capacity (70°C)	(1)	kW	4,00	2,95	2,22	/	/	/	7,34	4,47	3,32	/	/	/	10,49	6,37	5,19	/	/	/
Water flow rate	(1)	l/h	350	258	194	/	/	/	642	391	290	/	/	/	918	558	454	/	/	/
Pressure drops	(1)	kPa	10	6	4	/	/	/	24	10	6	/	/	/	42	17	12	/	/	/
Heating capacity (45°C)	(2)	kW	1,99	1,47	1,10	/	/	/	3,65	2,23	1,65	/	/	/	5,22	3,17	2,58	/	/	/
Water flow rate	(2)	l/h	345	254	192	/	/	/	633	386	287	/	/	/	905	550	448	/	/	/
Pressure drops	(2)	kPa	10	6	4	/	/	/	23	10	6	/	/	/	41	17	11	/	/	/
4 Pipe configuration with Additional Heat Exchanger																				
Heating capacity (65°C)	(3)	kW	/	/	/	2,32	1,96	1,74	/	/	/	2,74	2,04	1,75	/	/	/	3,19	2,51	2,21
Water flow rate	(3)	l/h	/	/	/	203	171	152	/	/	/	240	178	153	/	/	/	279	219	194
Pressure drops	(3)	kPa	/	/	/	9	7	5	/	/	/	12	7	5	/	/	/	19	12	10
Cooling Performance																				
Total cooling capacity	(4)	kW	1,90	1,47	1,16	1,90	1,47	1,16	3,95	2,54	1,96	3,64	2,30	1,83	4,98	3,21	2,66	4,61	2,96	2,46
Sensible cooling capacity	(4)	kW	0,99	1,25	1,52	1,52	1,25	0,99	3,16	1,82	1,38	2,91	1,62	1,30	3,81	2,24	1,87	3,53	2,08	1,73
Water flow rate	(4)	l/h	327	253	200	327	253	200	679	437	337	626	396	314	856	551	458	793	510	424
Pressure drops	(4)	kPa	11,7	7,4	4,8	12,7	8	5,2	32,4	14,7	9,2	31,7	13,9	9,2	47,8	21,6	15,5	50,3	22,7	16,3
Fans																				
Centrifugal Fan	n°	1																		
Air flow rate	m³/h	600	410	300	600	410	300	700	360	260	700	360	260	880	500	380	880	500	380	
Sound data																				
Sound power level	(5)	dB(A)	46	38	35	46	38	35	53	39	35	53	39	35	61	47	41	61	47	41
Sound pressure level		dB(A)	37	29	26	37	29	26	44	30	26	44	30	26	52	38	32	52	38	32
Diameter connections																				
Standard coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			
Additional coil	Ø	/			1/2"			/			1/2"			/			1/2"			
Increased coil	Ø	/			/			/			/			/			/			
Electrical Features																				
Absorbed power	W	18	13	10	18	13	10	55	16	12	55	16	12	61	20	14	61	20	14	
Max. input current	A	0,28			0,28			0,43			0,43			0,47			0,47			
Signal 0-10V	%	90	62	42	90	62	42	90	46	34	90	46	34	90	52	40	90	52	40	
Power supply		230V~50Hz																		

FCL		82			122			124		
Fan speed		H	M	L	H	M	L	H	M	L
Heating Performance										
2 pipe configuration										
Heating capacity (70°C)	(1) kW	11,88	8,12	5,88	21,75	14,73	10,53	/	/	/
Water flow rate	(1) l/h	1039	710	514	1903	1289	921	/	/	/
Pressure drops	(1) kPa	26	13	7	42	21	11	/	/	/
Heating capacity (45°C)	(2) kW	5,91	4,04	2,92	10,82	7,33	5,24	/	/	/
Water flow rate	(2) l/h	1025	701	507	1877	1271	909	/	/	/
Pressure drops	(2) kPa	25	13	7	41	20	11	/	/	/
4 Pipe configuration with Additional Heat Exchanger										
Heating capacity (65°C)	(3) kW	/	/	/	/	/	/	11,17	8,31	6,30
Water flow rate	(3) l/h	/	/	/	/	/	/	977	727	551
Pressure drops	(3) kPa	/	/	/	/	/	/	25	14	9
Cooling Performance										
Total cooling capacity	(4) kW	6,00	4,04	2,80	11,00	7,51	5,36	8,80	6,21	4,57
Sensible cooling capacity	(4) kW	4,20	2,76	1,90	8,47	5,74	4,04	6,77	4,67	3,37
Water flow rate	(4) l/h	1032	695	482	1893	1292	921	1513	1068	786
Pressure drops	(4) kPa	34,7	17	8,8	60,1	30,2	16,4	52,3	28	16,1
Fans										
Centrifugal Fan	n°	1								
Air flow rate	m³/h	1100	680	460	1750	1100	750	1750	1100	750
Sound data										
Sound power level	(5) dB(A)	50	43	39	60	50	44	60	50	44
Sound pressure level	dB(A)	41	34	30	51	41	35	51	41	35
Diameter connections										
Standard coil	Ø	3/4"			3/4"			3/4"		
Additional coil	Ø	/			/			1/2"		
Increased coil	Ø	/			/			/		
Electrical Features										
Absorbed power	W	33	14	9	135	33	16	135	33	16
Max. input current	A	0,71			0,80			0,80		
Signal 0-10V	%	90	54	38	90	58	38	90	58	38
Power supply	V/ph/Hz	230V~50Hz								

H max. speed; M med.speed; L min.speed

(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;

(2) Room air 20°C b.s.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 20°C b.s.; Water (in/out) 65°C/55°C (EUROVENT)

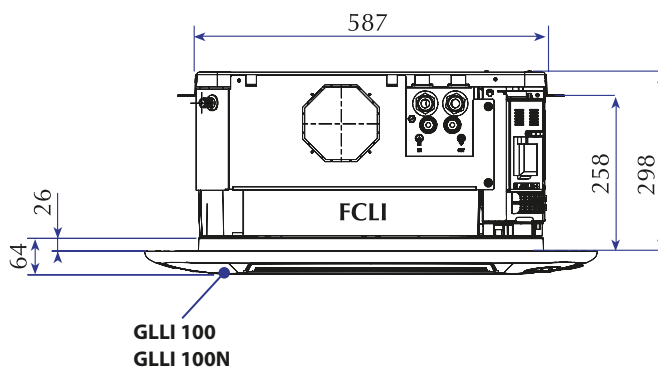
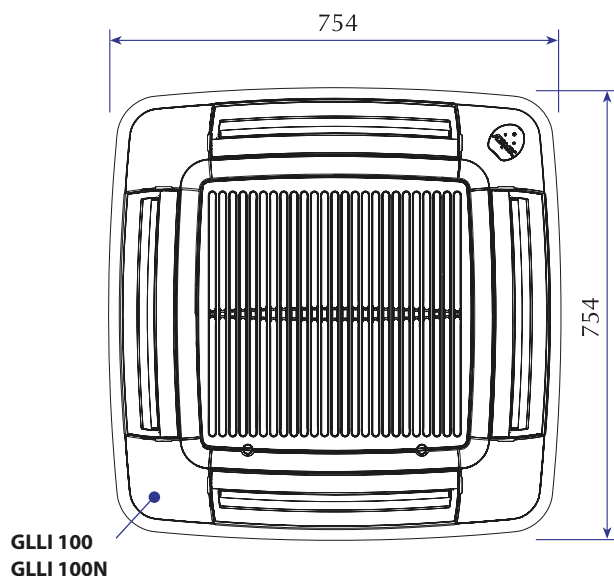
(4) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)

(5) Sound power level on the basis of measurements made in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured in the room with volume V=100 m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

## Dimensions (mm)

FCLI 32 - 34 - 42 - 44 - 62 - 64  
 FCLI 32 V2 - 34 V2 - 42 V2 - 44 V2 - 62 V2 - 64 V2  
 FCLI 32 VL - 34 VL - 42 VL - 44 VL - 62 VL - 64 VL

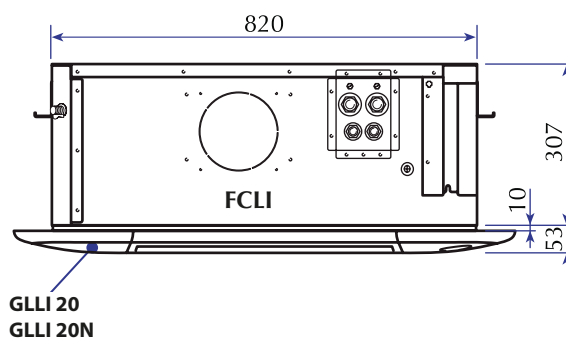
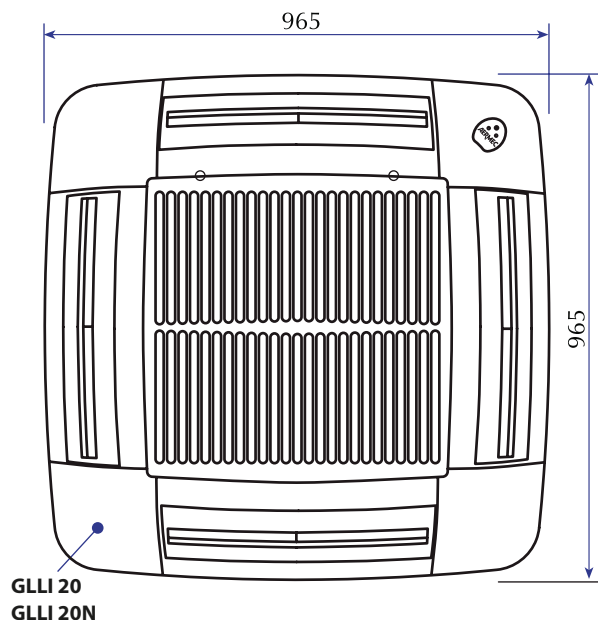


Mod. FCLI		32	34	42	44	62	64
Weight	kg	20,5	21	20,5	21	22	22,5

Mod. FCLI		32 V2	34 V2	42 V2	44 V2	62 V2	64 V2
Weight	kg	20,5	21	20,5	21	21	22,5

Mod. FCLI		32 VL	34 VL	42 VL	44 VL	62 VL	64 VL
Weight	kg	20	20,5	20	20,5	21,5	22

FCLI 82 - 122 - 124  
 FCLI 82 V2 - 122 V2 - 124 V2  
 FCLI 82 VL - 122 VL - 124 VL



Mod. FCLI		82	122	124
Weight	kg	35	36	36

Mod. FCLI		82 V2	122 V2	124 V2
Weight	kg	35	36	36

Mod. FCLI		32 VL	122 VL	124 VL
Weight	kg	34	35	35

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

Aermec S.p.A.  
 Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
 Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## FCW Fan coils Wall-mount installation



Aermec is participating in the EUROVENT Program: FCH  
The related products can be found at the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



### New Colors!

Pure White  
Pantone GRIS 1C  
RAL 9010

**Variable Multi Flow®**

VMF

- **VERSIONS WITH INTERNAL 2- OR 3-WAY VALVE**
- **QUICK AND EASY INSTALLATION**
- **COMPACT DIMENSIONS**

### Features

By appropriately combining the options available, it is possible to select the model that satisfies the specific system requirements.

#### Sale code description:

Code	Size	Valve	Microprocessor control
FCW	22-32-42	2V (with internal 2-way valve) 3V (with internal 3-way valve) VL (without valve)	(Empty) with control board N without control board

FCW is a fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors. The product is configurable and available with or without (2- or 3-way) valve, as well as with or without control board, which ensures compatibility with various system requirements. Fan coils without control board must be necessarily combined with an external control device.

- Display on the front panel
- Three-speed cross flow fan
- Maximum silence
- Aesthetically styled with flat panel
- Air flow louvered fins with horizontal adjustment facility
- Motorised deflector louvers that can be activated by remote control TLW2 and remote panel PFW2 for vertical orientation of the outlet air with 4 fixed positions and continuous oscillation
- Timer for programming switch-off or switch-on (TLW2 and PFW2)
- Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW2 and PFW2);
- Night time Well-being Program (TLW2)
- Automatic season change (TLW2 and PFW2)
- Automatic re-start after power cut (TLW2 and PFW2)
- Easy installation and maintenance.
- Air filter with easy extraction and cleaning
- Full compliance with accident-prevention standards.

### Accessories

#### For models with control board installed

FCW\_2V, 3V, VL it is mandatory to select among the user interfaces designed for the FCW series (TLW2 or PFW2)

#### For models without control board installed

FCW\_2VN, 3VN, VLN a user interface must be mounted outside the fan coil, using either a visible or a recessed wall-mount installation. To make the selection, please refer to the "control panels" or "VMF system" sheets, where you will find comprehensive information on this topic.

#### • Remote control TLW2

**(mandatory accessory for versions with controller FCW\_2V, FCW\_3V, FCW\_VL):**

This accessory is required for operating the fan coil as an alternative to the wired remote control panel PFW2.

Infrared remote control with liquid crystal display for controlling all unit functions.

The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil.

The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.

#### • Wired control panel PFW2

**(mandatory accessory for versions with controller FCW\_2V, FCW\_3V, FCW\_VL):**

This accessory is required for operating the fan coil.

The PFW2 panel can control only one fan coil.

The panel must be wall-mounted and connected to the fan coil using the 7.5-metre long cable provided.

## Technical data

FCW	222V			223V			22VL			322V			323V			32VL			422V			423V			42VL					
Fan speed	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L			
Heating Performance																														
2 pipe systems																														
Heating capacity (70°C)	(1)	kW		4,03	3,02	2,65	4,03	3,02	2,35	4,29	3,66	2,85	5,03	4,36	3,25	5,03	4,36	3,25	5,24	4,51	3,73	7,97	7,23	6,29	7,97	7,23	6,29	8,56	7,84	6,44
Water flow rate	(1)	l/h		354	265	206	354	265	206	377	321	250	442	383	286	442	383	286	460	396	328	699	635	552	699	635	552	751	688	565
Pressure drop	(1)	kPa		24	14	9	24	14	9	9	6	4	29	22	13	29	22	13	16	12	9	32	27	21	32	27	21	26	22	16
Heating capacity (45°C)	(2)	kW		2,00	1,50	1,17	2,00	1,50	1,17	2,14	1,82	1,42	2,50	2,17	1,62	2,50	2,17	1,62	2,61	2,24	1,85	3,96	3,60	3,13	3,96	3,60	3,13	4,26	3,90	3,21
Water flow rate	(2)	l/h		348	261	203	348	261	203	371	316	246	434	377	281	435	377	281	453	390	322	688	624	543	688	624	543	739	677	556
Pressure drop	(2)	kPa		24	14	9	24	14	9	8	6	4	29	22	13	29	22	13	16	12	9	31	26	20	31	26	20	25	22	15
Cooling Performance																														
Total cooling capacity	(3)	kW		1,90	1,45	1,10	1,90	1,45	1,10	2,05	1,74	1,37	2,40	2,08	1,55	2,40	2,08	1,55	2,50	2,15	1,78	3,80	3,45	3,00	3,80	3,45	3,00	4,08	3,74	3,07
Sensible cooling capacity	(3)	kW		1,55	1,20	0,92	1,55	1,20	0,92	1,73	1,47	1,16	1,97	1,68	1,28	1,97	1,68	1,28	2,04	1,82	1,51	2,85	2,50	2,01	2,85	2,50	2,01	3,47	3,10	2,59
Water flow rate	(3)	l/h		327	249	189	327	249	189	353	299	236	413	358	267	413	358	267	430	370	306	654	593	516	654	593	516	702	643	528
Pressure drop	(3)	kPa		23	14	9	23	14	9	9	7	5	29	22	13	29	22	13	15	11	8	32	27	21	32	27	21	26	21	15
Fans																														
Ventilatore - Tangential	n°		1																											
Air flow rate	m³/h		380	330	270	380	330	270	389	340	280	440	390	320	440	390	320	446	400	330	540	470	370	540	470	370	684	602	476	
Sound level																														
Sound power level	(4)	dB(A)		53	48	42	53	48	42	53	48	42	53	48	42	53	48	42	53	48	42	54	49	44	54	49	44	54	49	44
Sound pressure level	dB(A)		44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	44,5	39,5	34,0	45,5	40,5	35,5	45,5	40,5	35,5	45,5	40,5	35,5	
Hydraulic connections																														
Main coil																														
Standard	Ø Gas (F)		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F		1/2°F			
Electrical data																														
Absorbed power	W		27	24	23	27	24	23	27	24	23	27	23	22	27	23	22	27	23	22	48	41	31	48	41	31	48	41	31	
Connected for speeds			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	
Power supply			230V~50Hz																											

(1) Room air temperature 20°C d.b.; Water (in/out) 70°C/60°C;

(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C (EUROVENT)

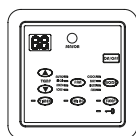
(4) Sound power level: based on measurement in compliance with Eurovent 8/2

Sound pressure level (A-weighted) measured indoors with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

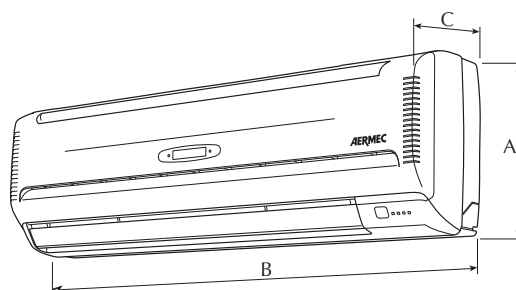
## Dimensional data (mm)



Accessory TLW2



Accessory PFW2



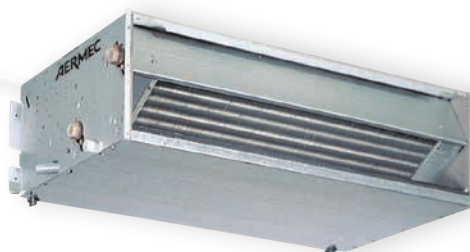
FCW		22	32	42
A	mm	298	305	360
B	mm	880	990	1170
C	mm	205	210	220
Weight	kg	9	10	19



## FHX Fan coils with germicidal lamp Floor and wall-mounting installation



**Aermec**  
participates in the EUROVENT Program FCH  
The products involved appear on the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



FHX-UVV  
FHX-UVPO



FHX-UV

- ☐ Housing RAL 9002
- ☐ Head and intake RAL 7044



VMF

- **GERMICIDAL LAMP INCORPORATED**
- **IDEAL FOR PLACES WHERE PERFECT HYGIENE IS REQUIRED**
- **3-ROW COIL**

The FHX fan coil is fitted with an exclusive device for air sterilisation, making it essential in environments that require the highest levels of hygiene, such as:

- hospitals

- dentists' surgeries
- doctors' and vets' surgeries
- analysis laboratories
- pharmaceutical companies
- waiting rooms

- beauty institutes
- homes
- offices
- public premises

### Features

#### • Versions:

**FHX-UV:** universal floor or wall/ceiling mounting

**FHX-UVV:** wall/ceiling mounting, without cabinet

**FHX-UVPO:** wall/ceiling mounting without cabinet, with boosted motor at 6/7 speeds (3 selectable)

- Compatible with the VMF system
- Exclusive device with germicidal lamps to sterilise the air, with 99% microbiological destruction for the inactivation all Gram - and Gram + micro-organisms
- Standard coil
- 3-speed fan unit

- Full compliance with accident prevention regulations
- Rounded profile
- Quiet operation
- Reduced pressure drops across heat exchangers
- Electric motors with permanently connected condensers
- Easy installation and maintenance.
- Air filter that's easy to remove and clean
- Command and control via microprocessor thermostat supplied as an accessory:
- FHX-UVV and UVPO: the command panel must be wall-mounted

- FHX-UV: the command panel can be mounted on the unit or externally
- FHX-UV: protective metallic cabinet with rustproofing polyester paint (RAL9002)
- FHX-UV: delivery and intake grille colour RAL7044
- Adjustable air distribution grille for UV versions (except models 62 and 82)



## Accessories

- **AMP:** Kit for overhang installation.
- **BC:** Auxiliary condensate drip tray.
- **GA:** Intake grille with fixed fins.
- **GAF:** Intake grille with fixed fins and filter.
- **GM:** Delivery grille with adjustable fins.
- **PA:** Plenum suction assembly in galvanised sheet metal, complete with suction couplings for circular-section ducts.
- **PA-F:** Plenum suction assembly that allows intake and delivery on the same side; suitable for all installations where the machine needs to be positioned outside the air-conditioned rooms in order to minimise noise levels and facilitate maintenance operations.
- **PC:** rear closure panel. Allows the rear part of the fan coil to be closed if it is visible. Must be applied when installing at a distance from the wall, to prevent access to the control board (in compliance with the current regulations).
- **PM:** Delivery plenum in galvanised sheet metal, externally insulated, complete with plastic delivery couplings for circular section ducts.
- **RD:** Straight delivery coupling for canalisation.
- **RDA:** Straight suction coupling for canalisation.
- **RP:** 90° delivery coupling for canalisation.
- **RPA:** 90° suction coupling for canalisation.
- **SE:** Manually operated fresh air intake louvre.

**SIT 3-5:** Thermostat Interface Cards. They allow the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat).

**SIT3:** commands the 3 fan speeds and must be installed on each fan coil of the network; receives the commands from the selector or the SIT5 card.

**SIT5:** commands the 3 fan speeds and up to 2 valves (four pipes systems); sends the commands of the thermostat to the fan coils network.

- **SW:** water temperature probe that allows automatic season change in electronic thermostats with water-side changeover

- **VCF:** the SW3 probe must be used with this accessory.

Kits complete with copper pipe fittings and 3-way valves of the "all or nothing" type that work with a 230V ~ 50Hz, 24V ~ 50Hz power supply.

**\* Warning: the VCF valve and BC4 tray cannot be installed together on the same fan coil.**

- **VCFD:** the SW3 probe must be used with this accessory.

**\* Warning: the VCFD valve and BC4 tray cannot be installed together on the same fan coil.**

- **ZX:** Feet for recessed installation.

**Compulsory accessory to be chosen from the fol-**

**lowing:**

- **PXAE:** electronic thermostat with simplified commands, with just two selectors for controlling temperature and ventilation (3 speeds managed manually or automatically). Continuous or thermostat-controlled ventilation. Wall-mounting.
- **PXAI:** electronic thermostat with simplified commands, with just two selectors for controlling temperature and ventilation (3 speeds managed manually or automatically). Continuous or thermostat-controlled ventilation. Water temperature probe included. Wall-mounting.
- **VMF System:** the characteristics of the control panels are described on the appropriate card.

Accessories		Size (FHX)						Versions
		22	32	42	50	62	82	
AMP	20	.	.	.	.	.	.	UVP-UVPO
	4	.	.	.	.	.	.	UV-UVP-UVPO
	5	.	.	.	.	.	.	UV-UVP-UVPO
BC	6					.	.	UV-UVP-UVPO
	8	(1)	.	.	.	.	.	UVP-UVPO
	9	(1)				.	.	UVP-UVPO
GA	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
GAF	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
GM	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
PA	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
PA	22F	.						UVP-UVPO
	32F		.					UVP-UVPO
	42F			.	.			UVP-UVPO
	62F					.	.	UVP-UVPO
PC	23	.						UV
	33		.					UV
	43			.	.			UV
	62					.	.	UV
PM	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
PXAE	(2)	.	.	.	.	.	.	UV-UVP-UVPO
PXAI	(2)	.	.	.	.	.	.	UV

Accessories		Size (FHX)						Versions
		22	32	42	50	62	82	
RD	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
RDA	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
RP	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
RPA	22	.						UVP-UVPO
	32		.					UVP-UVPO
	42			.	.			UVP-UVPO
	62					.	.	UVP-UVPO
SE	20X	(3)	.					UVP-UVPO
	30X	(3)		.				UVP-UVPO
	40X	(3)			.	.		UVP-UVPO
	80X	(3)				.	.	UVP-UVPO
SIT3		.	.	.	.	.	.	UV-UVP-UVPO
	SIT5	.	.	.	.	.	.	UV-UVP-UVPO
	SW3	.	.	.	.	.	.	UV-UVP-UVPO
	41	.	.					UV-UVP-UVPO
VCF	42			.	.			UV-UVP-UVPO
	43					.	.	UV-UVP-UVPO
	4124	.	.					UV-UVP-UVPO
	4224			.	.			UV-UVP-UVPO
VCFD	4324					.	.	UV-UVP-UVPO
	1	.	.					UV-UVP-UVPO
	2			.	.			UV-UVP-UVPO
	3					.	.	UV-UVP-UVPO
ZX	124	.	.					UV-UVP-UVPO
	224			.	.			UV-UVP-UVPO
	324					.	.	UV-UVP-UVPO
	7	.	.	.	.			UVP-UVPO
	8					.	.	UVP-UVPO

(1) BC8 and BC9 cannot be applied to fan coils with a protective cabinet.

(2) Compulsory accessory

(3) The SE accessories must be installed in combination with ZX feet.

## Technical data

FHX		22			32			42			50			62			82			
Fan speed		H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	
Performance in heating mode																				
2-pipe systems																				
Heating capacity (70°C)	(1)	kW	2,96	2,53	1,91	5,35	4,07	3,17	6,62	5,52	4,06	8,19	7,53	5,02	12,92	10,94	8,33	15,14	13,35	10,77
Water flow rate	(1)	l/h	260	222	167	470	357	278	580	484	356	718	660	440	1133	960	730	1328	1171	945
pressure drops	(1)	kPa	6	4	3	20	12	8	15	11	6	15	13	6	15	11	7	21	16	11
Heating capacity (45°C)	(2)	kW	1,47	1,26	0,95	2,66	2,02	1,57	3,29	2,75	2,02	4,08	3,75	2,50	6,43	5,44	4,14	7,53	6,64	5,36
Water flow rate	(2)	l/h	256	218	165	462	351	273	571	477	351	707	650	433	1115	945	719	1307	1152	930
pressure drops	(2)	kPa	5	4	2	19	12	8	14	10	6	14	12	6	15	11	7	20	16	11
Performance in cooling mode																				
Total cooling capacity	(3)	kW	1,50	1,22	0,84	2,40	1,84	1,55	3,40	2,78	2,31	4,19	3,51	3,51	4,86	4,37	3,22	6,91	5,00	4,29
Sensible cooling capacity	(3)	kW	1,24	1,00	0,67	1,90	1,57	1,11	2,76	2,11	1,63	3,00	2,54	1,79	3,98	3,30	2,44	5,68	3,78	2,97
Water flow rate	(3)	l/h	258	210	144	413	316	267	585	478	397	721	604	432	836	752	554	1189	860	738
pressure drops	(3)	kPa	6	5	3	28	17	13	14	10	7	19	14	8	17	14	8	22	12	9
Fan																				
Fan - Centrifugal	n°	1			2			2			2			3			3			
Air flow rate	m³/h	290	220	140	450	350	260	600	460	330	720	600	400	920	720	520	1140	930	700	
Noise levels																				
sound power level	(4)	dB(A)	50	43	31	48	41	34	51	44	39	56	51	42	57	51	42	62	57	51
Sound pressure level		dB(A)	42	35	23	40	33	26	43	36	31	48	43	34	49	43	34	54	49	43
Connector diameter																				
Standard coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			
Additional coil	Ø	/			/			/			/			/			/			
Increased coil	Ø	/			/			/			/			/			/			
Electrical characteristics																				
Input power	(5)	W	50	47	44	69	58	50	82	68	55	92	71	59	182	161	140	206	180	159
Max input current (UV - UVP)		A	0,12			0,21			0,28			0,35			0,4			0,49		
Max. input current (UVPO)		A	0,37			0,57			0,63			0,48			0,92			1,06		
Electrical wiring			V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1	V3	V2	V1
Power supply		V/ph/Hz	230V~50Hz																	

H max. speed; M med.speed; L min.speed

(1) Room air 20°C D.B.; Water (in/out) 70°C/60°C

(2) Room air 20°C D.B.; Water (in/out) 45°C/40°C (EUROVENT)

(3) Room air 27°C D.B. / 19°C W.B.; Water (in/out) 7°C/12°C (EUROVENT)

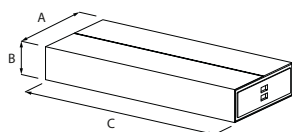
(4) Sound power based on measurements taken in compliance with Eurovent regulation 8/2.

Sound pressure level (A-weighted) measured in the room with volume V=85m³, reverberation time t = 0.5 s; Direction factor Q = 2; Distance r = 2.5m

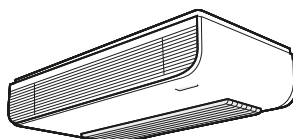
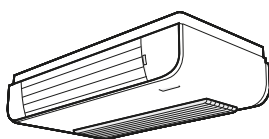
(5) Including the germicidal lamp.

## Dimensions (mm)

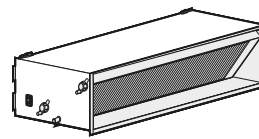
PACKAGING (example)



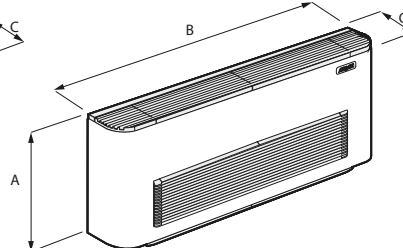
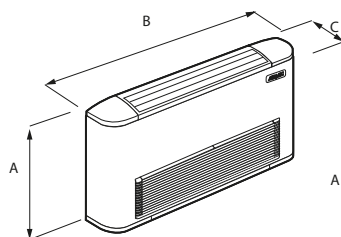
Wall/ceiling mounting with cabinet



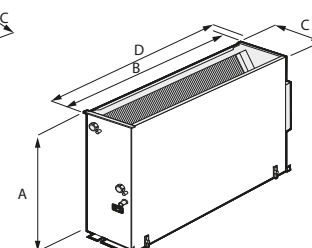
Wall/ceiling mounting without cabinet



Floor and wall/ceiling mounting with cabinet



Floor and wall/ceiling mounting without cabinet



FHX22-32-42-50UV

FHX62-82UV

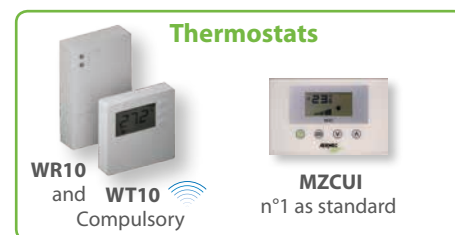
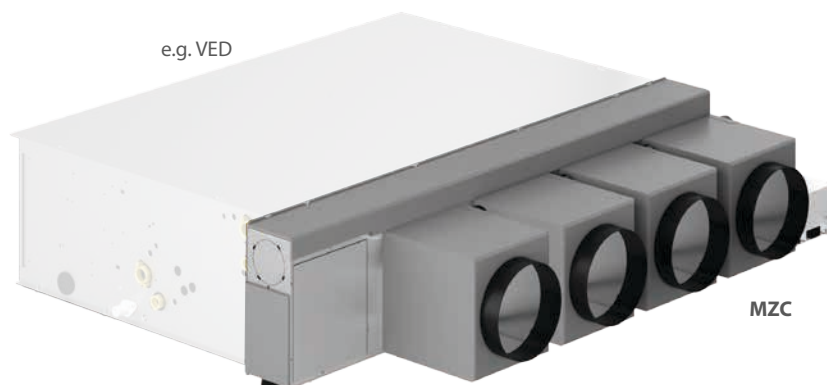
FHX22-32-42-5062-82UVP/UVPO

Model FHX (UV)		22	32	42	50	62	82
A	mm	520	520	520	520	590	590
B	mm	750	980	1200	1200	1320	1320
C	mm	220	220	220	220	220	220
Weight	kg	16	26	25	25	35	35
Model FHX (UVP - UVPO)		22	32	42	50	62	82
A	mm	453	453	453	453	453	453
B/D*	mm	522/572	753/823	973/1043	973/1043	1122/1205	1122/1205
C	mm	216	216	216	216	216	216
Weight	kg	16	26	25	25	35	35
Packaging dimensions							
A/B/C	mm	590/275/820	590/275/1050	590/275/1270		650/270/1415	

\* Maximum overall dimension (including the electric box)

# MZC

Plenum with motor-driven dampers  
for channelling fan coils



- **MULTI-ZONE PLENUM FOR CONTROLLING AIR CAPACITY**
- **AVAILABLE FOR CHANNELLED ON/OFF AND INVERTER FAN COILS**
- **IDEAL FOR RESIDENTIAL AND TERTIARY SECTOR APPLICATIONS**

## Features

- The plenum with motor-driven dampers is designed for residential and tertiary applications. It combines optimal ambient comfort with assured energy savings. Modern plant increasingly require overall air conditioning using channelled systems. Thanks to the electronic control of the dampers, the **MZC** accessory regulates the room's comfort by adjusting the air flow to meet the actual requirements. **MZC** is designed for use in combination with all **fan coils with asynchronous or brushless motors** and is pre-set to distribute exchange air.

### Special features:

#### Structure

- Galvanized sheet metal structure, insulated with self-extinguishing material.
- From 2 to 6 delivery outlet blocks depending on the model. Each outlet is fitted with a motor-driven damper, with the possibility -

whenever the system so requires - of adding an accessory MZCSM outlet (possibility not available for all models - see the accessory compatibility table).

- **Fresh air injection flange, supplied as standard**, for connecting the MZC plenum to a heat recovery unit.
- Pre-setting for the installation of an additional Air Probe (accessory MZCSA) to control the Modulating or Pressure Independent Valves.
- Possibility of installing the plenum even on the fan coil intake using a flange (accessory MZCA)
- Reversible electrical box (right/left)

### Adjustment

- **MZC is equipped with a zone thermostat MZCUI** to select the required temperature set. The status of the dampers (open/closed) is adjusted on reaching the temperature set in each room.
- Management of up to 6 motorized dampers
- Flow control for each damper (the damper's

maximum and minimum aperture can be set for each outlet).

- **Possibility of associating the control of multiple dampers with the same zone thermostat, even wireless (MZCUI or WT10).**
- For installations in which the dampers and room thermostats are uniquely associated, the dampers can be modulated in relation to the room thermostats' requirements.
- Enabling the "Suction Plenum" function
- MZC is able to control any valves installed on the fan coil associated with it (On/Off, modulating or Pressure Independent types) for systems with 2 or 4 pipes
- Possibility of setting control unit parameters through the supervision serial port

## Compatibility of accessories

- **MZCAC, Compulsory** electrical plant for connecting the MZC plenum **with a fan coil fitted with an asynchronous motor**
- **MZCBC, Compulsory** electrical plant for connecting the MZC plenum **with a fan coil fitted with a brushless motor**
- **MZCSM**, single module with motorized damper **for all models except MZC220**
- **MZCUI**, zone thermostat **in addition to the one supplied as standard whenever the plant installation so requires.**
- **MZCA**, Adapter flange for installing the Plenum even under fan coil suction.
- **WT10**, Wireless thermostat.
- **WR10**, Two-channel wireless receiver for WT10.
- **MZCSA**, Air Probe for controlling Modulating or Pressure Independent Valves.
- **VMF-VOC**, Air quality detection accessory.

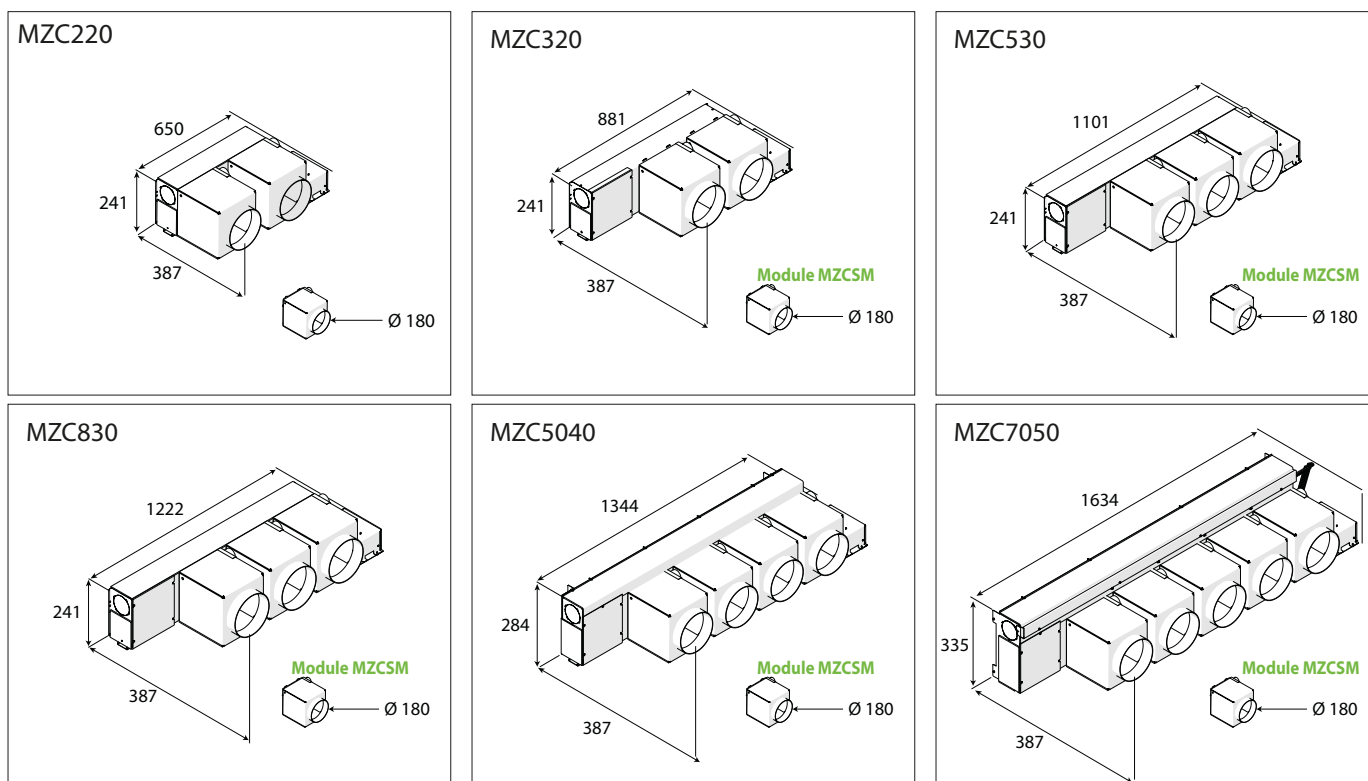
	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
MZCSM	-	•	•	•	•	•
MZCUI	•	•	•	•	•	•
MZCAC	•	•	•	•	•	•
MZCBC	•	•	•	•	•	•
WT10	•	•	•	•	•	•
WR10	•	•	•	•	•	•
MZCA	2	3	5	8	-	-
MZCSA	•	•	•	•	•	•
VMF-VOC	•	•	•	•	•	•

## Compatibility of MZC Plenums with Aermec Fan Coils

For performance data, refer to the product data cards for each MZC compatible unit. All these data cards are available on the site [www.aermec.com](http://www.aermec.com)

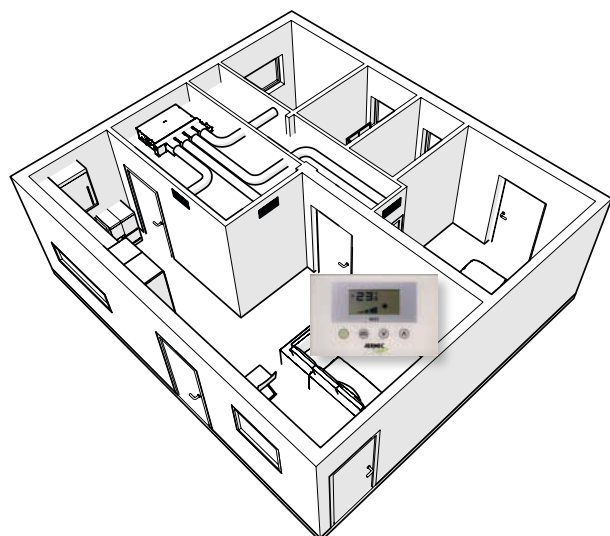
Models	N° Dampers	FCX_PO	FCXI_P	FCZ_PO	FCZI_P	VED	VED_I
<b>MZC220</b>	2	22-24	20-24	200-201-202-250	200-201-202-250	030-040	030-040
<b>MZC320</b>	2 *	32-34-36	30-34-36	300-301-302-350	300-301-302-350	130-140	130-140
<b>MZC530</b>	3 *	42-44 50-54-56	40-44 50-54-56	400-401-402-450 500-501-502-550	400-401-402-450 500-501-502-550	230-240	230-240
<b>MZC830</b>	3 *	62-64 82-84	80-84	600-601-602-650 700-701-702-750 800-801-802-850 900-901-950	700-701-702-750 900-901-950	330-340	330-340
<b>MZC5040</b>	4 *	-	-	-	-	430-432-440-441 530-532-540-541	530-532-540-541
<b>MZC7050</b>	5 *	-	-	-	-	630-632-640-641 730-732-740-741	730-732-740-741

\* Whenever the plant installation so requires, it is even possible to add later on a single delivery module **MZCSM** (accessory), refer to the figures

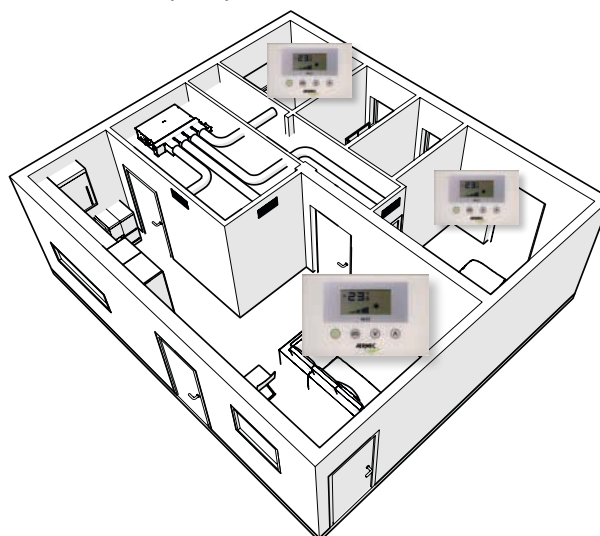


## Plant solutions

**Solution** - with n° 1 MZCUI zone thermostat  
Supplied as standard



**Solution** - with n° 3 MZCUI zone thermostats  
n° 1 Supplied as standard (Master)  
n° 2 Accessories (Slave)



All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## PMZ

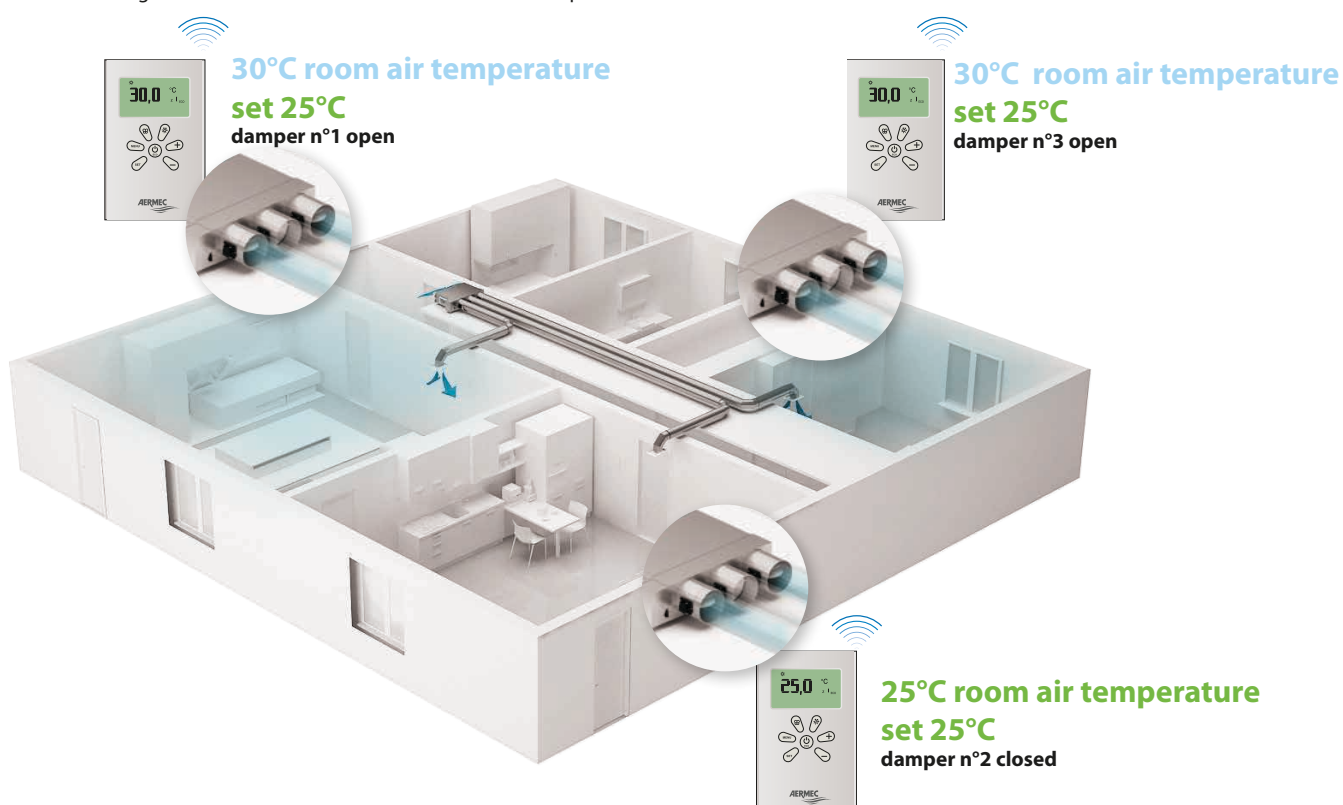
Plenum with motorized dampers  
for ducted fan coils



- **MULTIZONE PLENUM TO CONTROL THE AIR FLOW**
- **TO BE COMBINED WITH FCX\_I AND VED\_I FAN COILS WITH INVERTER MOTOR**
- **PERFECT FOR RESIDENTIAL AND SERVICES SECTORS APPLICATIONS**
- **WIRELESS THERMOSTATS**

### Characteristics

- The plenums with motorized dampers have been designed for residential and service sectors applications. It allows to combine an optimal environmental comfort with an assured energy saving. More and more in modern systems one needs to have a global climatization through ducted systems. The accessory **PMZ, thanks to the electronic control of dampers**, regulates the room comfort, adjusting the air flow to actual needs. **PMZ** has been designed to be combined with fan coils with inverter motor.
- The structure is made of galvanized sheet, internally insulated with self-extinguishing material. It is provided with a variable number from 2 to 6 circular attacks, equipped with motorized dampers in two positions (open/closed) depending on the combined model. The damper motor is controlled directly from the wireless room thermostat. With the plenum it is provided a room thermostat for each motorized damper.
- **Regulation: the regulation system adjusts the air flow provided by the fan coil** according to the number of open dampers. The state of the damper (open/closed) is regulated by reaching the temperature set in each room. The control system is also able to control the valves of on / off type, two or three-way valves for two or four pipe configuration.





## Compatibility Plenum with fancoils

FANCOIL	PLENUM 2 DELIVERIES	PLENUM 3 DELIVERIES	PLENUM 4 DELIVERIES	PLENUM 5 DELIVERIES	PLENUM 6 DELIVERIES
FCXI20/24P	PMZ22	-	-	-	-
FCXI30/34P	PMZ32	PMZ33	-	-	-
FCXI40/44P	PMZ42	PMZ43	PMZ44	-	-
FCXI50/54P	-	PMZ43	PMZ44	-	-
FCXI80/84P	-	PMZ83	PMZ84	-	-
VED030/040I	PMZ22	-	-	-	-
VED130/140I	PMZ32	PMZ33	-	-	-
VED230/240I	PMZ42	PMZ43	PMZ44	-	-
VED330/340I	-	PMZ83	PMZ84	-	-
VED530/540I	-	-	PMZ504	PMZ505	-
VED730/740I	-	-	-	PMZ705	PMZ706

## Technical data

Mod. FCXI_P			Vel.	20	24	30	34	40	44	50	54	80	84
HEATING PERFORMANCE (2 PIPE CONFIGURATION)													
Heating capacity (50°C)	(1)	W	H	2100	2320	3160	3550	4240	5250	4900	6100	7990	10207
Water flow rate	(1)	l/h	H	258	298	380	482	585	765	721	855	1276	1479
HEATING PERFORMANCE (4 PIPE CONFIGURATION - with additional heat exchanger)													
Heating capacity (70°C)	(2)	W	H	1751	-	2826	-	3460	-	4223	-	6410	-
Water flow rate	(2)	l/h	H	154	-	248	-	303	-	370	-	562	-
COOLING PERFORMANCE													
Total cooling capacity	(3)	W	H	1500	1730	2210	2800	3400	4450	4190	4970	7420	8600
Water flow rate	(3)	l/h	H	258	298	380	482	585	765	721	855	1276	1479
Air flow rate		m³/h	H	290	290	450	450	600	600	720	720	1140	1140
Fans		type											
		n°		1	1	2	2	2	2	2	2	3	3
Max. high static pressure		Pa	H	50	50	56	56	53	53	46	46	30	30
Absorbed power		W		12	12	13	13	17	17	37	37	80	80
Absorbed power (plenum)		W						5					

Mod. VED_I			Vel.	030	040	130	140	230	240	330	340	530	532	540	541	730	732	740	741
HEATING PERFORMANCE (2 PIPE CONFIGURATION)																			
Heating capacity (50°C)	(1)	W	H	2180	2340	3750	3940	4320	4750	6270	6550	10420	-	11820	-	17280	-	19150	-
Water flow rate	(1)	l/h	H	279	327	516	566	588	691	860	922	1335	-	1543	-	2382	-	2766	-
HEATING PERFORMANCE (4 PIPE CONFIGURATION)				with BV030		with BV130		with BV230		with BV330									
Heating capacity (70°C)	(2)	W	H	2220	-	3780	-	4493	-	5888	-	-	13540	-	8850	-	22174	-	14500
Water flow rate	(2)	l/h	H	196	-	331	-	394	-	515	-	-	1188	-	776	-	1945	-	1272
COOLING PERFORMANCE																			
Total cooling capacity	(3)	W	H	1624	1900	2997	3290	3420	4020	5000	5360	7760	7760	8970	8970	13850	13850	16080	16080
Water flow rate	(3)	l/h	H	279	327	516	566	588	691	860	922	1335	1335	1543	1543	2382	2382	2766	2766
Air flow rate		m³/h	H	285	277	433	420	590	570	805	775	1520	1520	1500	1500	2410	2410	2350	2350
Fans		type																	
		n°		1	1	2	2	2	2	3	3	2	2	2	2	3	3	3	3
Max. high static pressure		Pa	H	61	61	60	60	64	63	66	64	58	56	56	56	69	69	69	69
Absorbed power		W		36	36	45	45	53	53	86	86	205	185	205	185	370	363	370	363
Absorbed power (plenum)		W								5									

H max. speed;

### 2 pipes system configuration (EUROVENT)

(1) Room air temperature 20°C b.s.; Inlet water temperature 50°C; Water flow rate as in cooling mode

### 4 pipes system configuration (with additional heat exchanger) (EUROVENT)

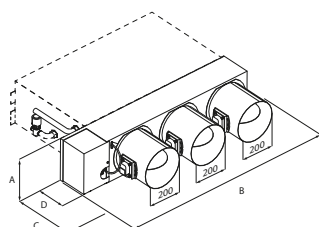
(2) Room air temperature 20°C b.s.; Inlet water temperature 70°C; ΔT water 10°C

### Cooling performance (EUROVENT)

(3) Room air temperature 27°C b.s./19°C b.u.; Inlet water temperature 7°C; DT water 5°C

**Note:** For more information, please refer to the program selection and the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



### WARNING

The brackets supplied as standard are highly recommended to install fan coils – from 20 to 54 size – with their plenums

Acessories Plenum		PMZ22	PMZ32	PMZ33	PMZ42	PMZ43	PMZ44	PMZ83	PMZ84	PMZ504	PMZ505	PMZ705	PMZ706
Height	A	216	216	216	216	216	216	216	216	300	300	351	351
Width	B	644	875	875	1095	1095	1095	1224	1224	1231	1231	1631	1631
Depth	C	380	380	380	380	380	380	380	380	380	380	380	380
	D	180	180	180	180	180	180	180	180	180	180	180	180
Delivery	n°	2	2	3	2	3	4	3	4	4	5	5	6
	Ø	200	200	200	200	200	200	200	200	200	200	200	200
Weight	kg	9	9	11	10	13	14	13	14	22	24	32	35

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# Ventilcassaforma

Template for recessed installation of fancoils in the wall

*Variable Multi Flow®*

CHF  
CHU L

VMF



**Ventilcassaforma** has been designed to respond to the needs to rationalise spaces to suit modern interior architecture.

**Ventilcassaforma** is a galvanised template that makes it possible to make a space to house fan coils in the wall. The template will make masonry work easier during the construction of a niche where the fan coil will be installed. When the work is finished, the fan coil will be completely hidden from view.

**Ventilcassaforma** is available in two versions with the same characteristics but designed to house fan coils from two different series:

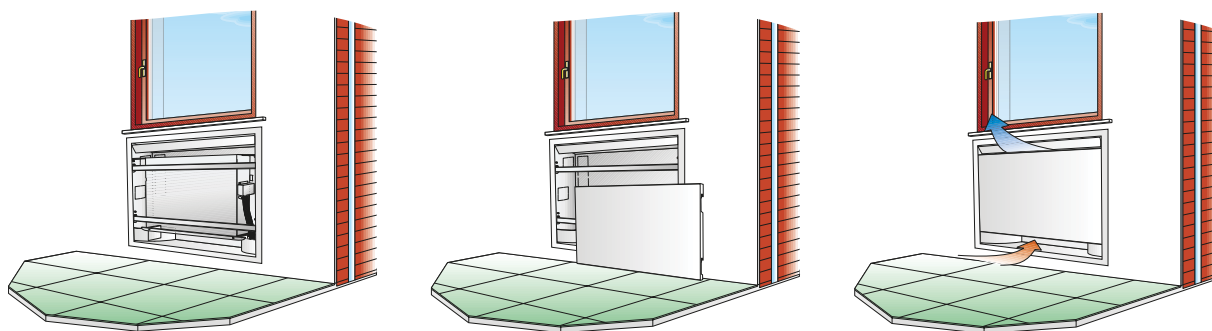
- **CHU-L** for fan coils in the **Omnia UL-P** series
- **CHF** for fan coils in the **FCX-P**, **FCX-PV** and **FCXI-P** series in 2 pipe systems, 2 pipe systems with resistance and with 4 pipe systems

## Features

- Available in two versions for combined fan coils:
  - CHU-L:** Ventilcassaforma for the OMNIA UL-P series. Available in four sizes
  - CHF:** Ventilcassaforma for FCX-P, FCX-PV and FCXI-P fan coils. Available in 5 sizes
- **Compatible with VMF System**
- **Ventilcassaforma** is made up of the following parts to be assembled:
  - Recess box;
  - Closure panel;
  - Outer frame with deflector;
  - Cover bases, cross-members, covers.

All parts are made of galvanised steel and treated with epoxy-polyester resin-based thermo-hardening base paint in grey with rough glazed finish in order to hold the paint. The final colour can be chosen by the client.
- **Closure Panel:** Made of galvanised steel, this is the box housing the fan coil. The box is recessed in the wall during building work making the construction of a niche where the fan coils will be installed much easier. Holes for fitting the fan coil and preparing an electric plant with a socket and GEWISS fuse holder are already present on the back panel. The box can accommodate the hydraulic system pipes and condensation drain pipes thanks to the presence of several easily-removable elements on the sides and base.
- **Closure Panel:** made of steel pre-treated with base paint and no slots present.
- Easily removable for servicing and cleaning the air filter.
- **Outer Frame:** the perimeter of the box has an outer frame made of pre-treated steel making it possible to cover the perimeter part of the wall and hide any imperfections that overtime show possible crumbling on the edge of the plaster work.
- **Deflector:** manual, with which the flow of air can be directed into the room. The deflector is incorporated in the frame.





## Ventilcassaforma - Omnia UL combination

Ventilcassaforma CHU L + Omnia UL combination						
Ventilcassaforma	CHU 12 L		CHU 17 L		CHU 27 L	CHU 37 L
Fan coil	Omnia UL 11 P		Omnia UL 16 P		Omnia UL 26 P	Omnia UL 36 P
Ventilcassaforma CHF - FCX P / FCX PV / FCXI P / FCZ P / FCZI P						
Ventilcassaforma	CHF 17	CHF 22	CHF 32	CHF 42	CHF 62	
Fan coil	FCX 17 P	FCX 22 P	FCX 32 P - 36 P	FCX 42 P - 50 P - 56 P	FCX 62 P - 82 P - 102 P	
	FCX 17 PV	FCX 22 PV	FCX 32 PV - 36 PV	FCX 42 PV - 50 PV - 56 PV	FCX 62 PV - 82 PV - 102 PV	
	FCZ 1 P-PPC *	FCX 24 P	FCX 34 P	FCX 44 P - 54 P	FCX 64 P - 84 P	
		FCX 24 PV	FCX 34 PV	FCX 44 PV - 54 PV	FCX 64 PV - 84 PV	
		FCXI 20/24 P	FCXI 30/34/36 P	FCXI 40/44 P - 50/54/56 P	FCXI 80/84 P	
		FCZ 2 P-PPC-PO *	FCZ 3 P-PPC-PO *	FCZ 4/5 P-PPC-PO *	FCZ 6/7/8/9/10 P-PPC-PO*	
		FCZI 2 P *	FCZI 3 P *	FCZI 4/5 P *	FCZI 7/9 P *	

The fan coils FCX-P, FCX-PV and FCXI-P can be inserted into 2 pipe systems, 2 pipe systems with resistance and 4 pipe systems

\* For fan coils FCZ and FCZI, with 1, 2, 3, 4 .... means all sizes available es. with "1" means 100/101/102/150

## Dimensions (mm)

CHU		12 L	17 L	27 L	37 L
Height	A	691	691	691	691
	A1	648	648	648	648
Width	B	692	802	1032	1252
	B1	644	754	984	1204
Depth	C	186	186	186	186

CHF		17	22	32	42	62
Height	A	728	728	728	728	833
	A1	684	684	684	684	789
Width	B	732	842	1073	1293	1414
	B1	684	794	1025	1245	1366
Depth	C	240	240	240	240	240

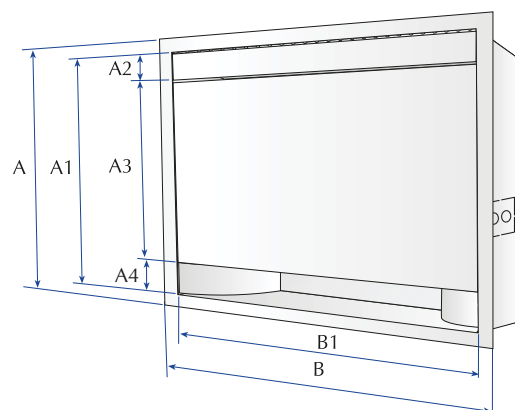
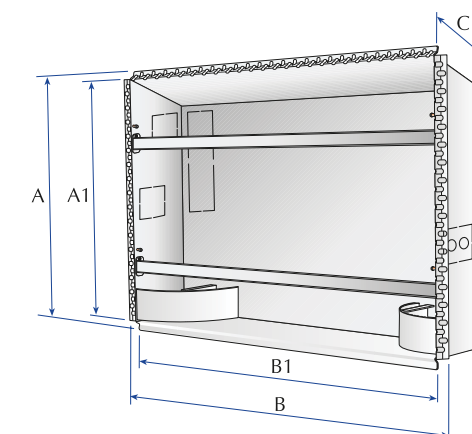
## Outer frame and closure panel

CHU		12 L	17 L	27 L	37 L
Height	A	724	724	724	724
	A1	634	634	634	634
	A2	70	70	70	70
	A3	494	494	494	494
Width	B	713	823	1053	1273
	B1	633	743	973	1193

CHF		17	22	32	42	62
Height	A	760	760	760	760	865
	A1	680	680	680	680	785
	A2	93	93	93	93	93
	A3	493	493	493	493	598
	A4	94	94	94	94	94
Width	B	753	863	1094	1314	1435
	B1	673	783	1014	1234	1355

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



Cod.: SVC2UY.09 / 1610

# Control panels

Range of control panels for fan coils

## • WIDE RANGE OF CONTROL PANELS FOR AN EASY AND COMPLETE CONTROL OF ALL FUNCTIONS OF THE FAN COIL



**WMT21:** Electronic thermostat for inverter fan coils installed in:  
1. 2-pipe systems  
2. 4-pipe systems

Overall dimensions (mm):  
H=87 - W=132 - D=31

### Features and standard equipment

- Wall-mount installation
- Automatic / manual season change
- Thermostated control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control or continuous adjustment
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	-	•
Air probe (SWAI)	•	-	•
Water probe (SWAI)	•	-	•



**FMT21:** Electronic thermostat for fan coils installed in:  
1. 2-pipe systems  
2. 2-pipe systems with resistance  
3. 4-pipe systems

Overall dimensions (mm):  
H=80 - W=113 - D=50

### Features and standard equipment

- Recessed installation (module 503 box)
- Automatic / manual season change
- Control of up to 2 On/Off valves, or 1 valve and 1 resistance
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Air probe (SWA)	•	•	•
Water probe (SWA)	•	•	-
SIT3	•	-	-
SIT5	-	•	•
Electric resistance	-	•	-



**TPF:** Electronic thermostat with thermostated or continuous ventilation for fan coils in:  
1. 2-pipe systems  
2. 4-pipe systems

Overall dimensions (mm):  
H=45 - W=75 - D=46

### Features and standard equipment

- Recessed installation (module 503 box)
- Automatic / manual season change
- Control of up to 2 On/Off valves,
- Temperature and ventilation control
- Internal air probe
- Water probe (supplied)

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	•	•
Air probe	-	-	-
Electric resistance	-	•	-



**PXB1:** Control panel for fan coils in:  
1. 2-pipe systems with or without valve

Overall dimensions (mm):  
H=145 - W=70 - D=29

### Features and standard equipment

- Fan coil installation
- Manual season change
- Control of up to 1 On/Off valve,
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	-
Cold water valve	•	-	-
SIT3 e SIT5	•	-	-



**PXAe:** Electronic thermostat with thermostated or continuous ventilation for fan coils in:  
1. 2-pipe systems  
2. 4-pipe systems

Overall dimensions (mm):  
H=148 - W=70 - D=27.5

### Features and standard equipment

- Wall-mount installation
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Internal air probe
- Louvre and external contact management

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Water probe (SW3)	•	•	•
SIT3 e SIT5	•	•	•



**PXA1:** Electronic thermostat with thermostated or continuous ventilation for fan coils in:  
1. 2-pipe systems  
2. 4-pipe systems

Overall dimensions (mm):  
H=148 - W=70 - D=27.5

### Features and standard equipment

- Fan coil installation
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Internal water (2.5m) and air (2.3m) probes
- Louvre and external contact management

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	•	•
SIT3 e SIT5	•	•	•



**PXAAR:** Electronic thermostat with thermostated or continuous ventilation for fan coils in:  
1. 2-pipe systems with resistance

Overall dimensions (mm):  
H=148 - W=70 - D=27.5

### Features and standard equipment

- Wall-mount or fan coil installation
- Automatic / manual season change
- Control of up to 1 On/Off valve and 1 resistance
- Temperature and ventilation (3 speeds) control
- Internal air probe
- Louvre and external contact management

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Cold water valve	-	•	-
SIT3 e SIT5	-	•	-
Water probe (SW3)	-	•	-
Electric resistance	-	•	-



**KTLm:** Control thermostat kit (remote control and receiver) for fan coils with casing in:  
1. 2-pipe systems with or without valve  
2. 4-pipe systems with valve

### Features and standard equipment

- Even wall-mount installation with the fixing brackets
- Automatic / manual season change
- Control of up to 2 On/Off valves,
- Temperature and ventilation (3 speeds) control
- Air probe inside the function remote control (IFEEL)
- Air probe supplied for installation in fan coil intake

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Electric resistance	-	•	-



**PTI:** Control panel for fan coils in:

- 2-pipe systems with or without valve

#### Features and standard equipment

- Fan coil installation
- Automatic / manual season change
- Temperature and ventilation (3 speeds) control
- Internal water (2.5m) and air (2.3m) probes

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	-
Cold water valve	•	-	-
SIT3 e SIT5	•	-	-



**PTI2:** Control panel for fan coils INVERTER with case:

- 2-pipe systems with or without valve
- 4-pipe systems with valve

#### Features and standard equipment

- Fan coil installation
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Air probe inside the remote control
- Internal water probe for the control of the minimum or maximum, depending on the plant

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance*	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Electric resistance	-	•	-

\* is possible too handling the Plasmacluster filter, or germicidal lamp, contact us



**KTLP:** Control thermostat kit (remote control and receiver) for ducted fan coils in:

- 2-pipe systems with or without valve
- 4-pipe systems with valve

#### Features and standard equipment

- Even wall-mount installation with the fixing brackets
- Automatic / manual season change
- Control of up to 2 On/Off valves
- Air probe inside the remote control
- Air probe provided for possible fan coil installation

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	•
Cold water valve	•	•	•
Electric resistance	-	•	-



**PX2:** Commutator switch for fan coils in:

- 2-pipe systems without valve

**PX2C6 :** Pack of 6 pcs.

Overall dimensions (mm):  
H=145 - W=70 - D=29

#### Features and standard equipment

- Wall-mount or fan coil installation
- Ventilation control (3 speeds)

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	-
Cold water valve	-	-	-
SIT3	•	-	-



**PX:** Commutator switch for fan coils in:

- 2-pipe systems

#### Features and standard equipment

- Wall-mount installation
- Ventilation control (3 speeds)

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	-
Cold water valve	•	-	-
SIT3	•	-	-



**PX2C6:** Commutator (similar to al PX2) switch for fan coils in:

- 2-pipe systems without valve

**PX2C6 :** Pack of 6 pcs.

Overall dimensions (mm):  
H=145 - W=70 - D=29

#### Features and standard equipment

- Wall-mount installation
- Ventilation control (3 speeds)

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	-	-	-
Cold water valve	-	-	-
SIT3	•	-	-



**WMT05:** Electromechanical thermostat with thermostated ventilation for fan coils in:

- 2-pipe systems without valve

Overall dimensions (mm):  
H=75 - W=127 - D=25

#### Features and standard equipment

- Wall-mount installation
- Manual season change
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
SIT3	•	-	-



**WMT06:** Electromechanical thermostat with continuous ventilation for fan coils in:

- 2-pipe systems
- 4-pipe systems

Overall dimensions (mm):  
H=75 - W=127 - D=25

#### Features and standard equipment

- Wall-mount installation
- Manual season change
- Thermostated control of up to 2 On/Off valves
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	-	•
SIT3	•	-	-
Resistance	-	•	-



**WMT10:** Electronic thermostat with thermostated or continuous ventilation for fan coils in:

- 2-pipe systems
- 2-pipe systems with resistance
- 4-pipe systems

Overall dimensions (mm):  
H=75 - W=127 - D=25

#### Features and standard equipment

- Wall-mount installation
- Manual season change
- Control of up to 2 On/Off valves,
- Temperature and ventilation (3 speeds) control
- Internal air probe

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	•	•
Cold water valve	•	-	•
Resistance	-	•	-



**FMT10:** Electronic thermostat for fan coils in:

- 2-pipe systems
- 2-pipe systems with resistance
- 4-pipe systems

Overall dimensions (mm):  
H=80 - W=118 - D=40

#### Features and standard equipment

- Wall-mount installation
- Automatic / manual season change
- Control of up to 2 On/Off valves, or 1 valve and 1 resistance
- Temperature and ventilation (3 speeds) control
- Air probe (supplied) to be installed on the fan coil intake

Accessories manageable (1) by type of system	2 pipes	2 pipes with resistance	4 pipes
Hot water valve	•	-	•
Cold water valve	•	•	•
Resistance	-	•	-

(1) for the names of the accessories refer to the fan coil technical sheets.

## VMF

**Variable Multi Flow system**  
Range of components for the management of air conditioning,  
heating and domestic hot water systems

*Variable Multi Flow*

### Zone interface



VMF-E4D

VMF-E4



\*As awarded by Chicago Athenaeum:  
Museum of the Architecture and Design

### VMF systems central interface



VMF-E5N / VMF-E5B

### Accessory module



VMF-VOC

VMF-CRP

### Zone interface



VMF-E2  
VMF-E2H

### Thermostat with serial communication



VMF-E0

VMF-E1 / VMF-E18



VMF-SW / VMF-SW1

### Domestic water panel



VMF-ACS

\* Winner for the International design Award "Good Design 2010" for the "Electronics"

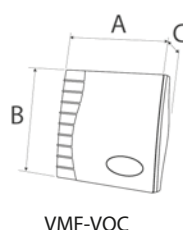
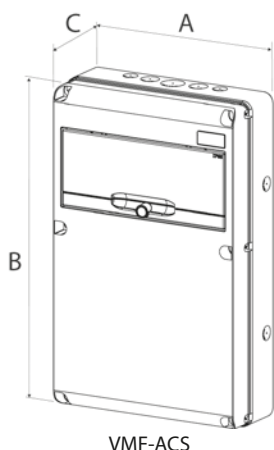
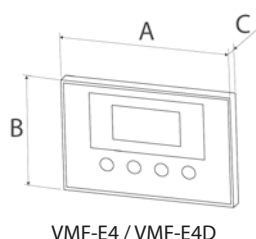
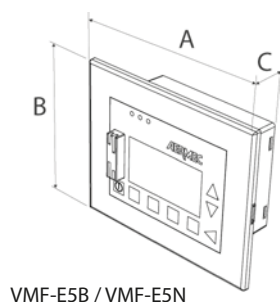
### Features

- VMF: Variable Multi Flow system.  
Management and control system of hydronic systems for the conditioning, heating and production of domestic hot water.  
The VMF system allows complete control of every component of a hydronic system both locally and centrally and, communicating between the various components of the system, manages the performance without ever neglecting the end user's request of comfort, but reaching it as efficiently as possible with energy saving.  
If you add the advantages deriving from such an innovative control to the flexibility of a hydronic system, you get a more efficient and effective alternative to the variable refrigerant flow systems (VRF).  
The VMF system is extremely flexible, enough to allow various control and manage steps, expandable at different moments:
- 1) Control of a single fancoil.
  - 2) Control of a microzone (one MASTER fancoil and a maximum of 5 SLAVE fancoils).
  - 3) Control of multi independent zones system (one MASTER fancoil and a maximum of 5 SLAVE fancoils for each zone).
  - 4) Control of a fancoil system, plus management of the heat pump (if compatible with the VMF system).
  - 5) Control of a fancoil system, heat pump and management of the domestic hot water system (VMF-ACS).
  - 6) Control of a fancoil system, heat pump, domestic hot water production and additional circulators (up to a maximum of 12 using three additional VMF-CRP modules).
  - 7) Control of a fancoil system, heat pump, domestic hot water production, additional circulators and management of heat recovery units, maximum 3, (with the ability to handle up to 3 VMF-VOC sensors) or a boiler.
- The VMF system can operate and manage, through a VMF-E5N / VMF-E5B panel, a maximum of 64 zones consisting of a MASTER fancoil and a maximum of 5 SLAVE fancoils connected to each MASTER, for a total of 384 fancoils.
  - Besides the central control supplied by the VMF-E5N / VMF-E5B panel, the MASTER fancoils must be provided with a local control interface; this interface can be mounted on the fancoil (VMF-E2 / VMF-E2H) or be mounted into a wall panel (VMF-E4).
  - Different functions can be controlled through the VMF-E5N / VMF-E5B panel, including:
    - Identify the different zones setting a name for each one.
    - Check and set the ON-OFF function and the set temperature of each zone.
    - Set and manage the set temperature of the heat pump.
    - Scheduling time slots.
  - Simple installation of the fancoil system through the SELF-MONITORING function of the MASTER fancoils.

## System components

- **VMF-E0:** thermostat accessory to fix on the side of the fancoil, equipped with air and water sensors as standard, controls 2 pipes, 4 pipes, 2 pipes + Plasmacluster, 2 pipes + UV lamps, 2 pipes + Electric heater systems. Equipped with external contact to be used as low voltage remote ON-OFF. This thermostat can create a single fancoil zone through 2-wire serial communication (1 master + 5 slaves maximum). The thermostat is fuse protected.
- **VMF-E1:** like VMF-E0 with extra:
  - Economy contact/presence sensor.
  - Auxiliary water sensor for general control in 4-tube systems (with VMF-SW1 accessory).
  - Serial RS485, protocol ModBus RTU, for centralised control.
  - Possibility to insert expansion cards for future development. The VMF-E1 accessory must therefore be used in the Masters in the presence of multiple zones, or for communication with the chiller/heat pump.
- **VMF-E18:** the same as the VMF-E1, but for fancoils with inverter motors.
- **VMF-E2:** this is the user interface on the machine to match to the VMF-E0, VMF-E1 and E18 accessories for the series UL-S-FCX-AS, FCX-U (sizes 62-64-82-84-102) FCX180U FHX-U (sizes 62-82). Equipped with 2 selector switches, one for temperature and one for speed control.
- **VMF-E2D:** is the user interface (as above) on the machine, to combine with accessories VMF and VMF-E0-E1, dedicated to the series DUALJET.
- **VMF-E2H:** this is the User Interface (as above) on the machine, to match to the VMF-E0, E1, accessories dedicated to the HL series
- **VMF-E4:** this is the wall mounted user interface, to match to the VMF-E0, VMF-E1 and VMF-E18 accessories for the UL, HL, and FCX series without on-board control. Innovative design, extremely slim and inexpensive, allows control of functions via a capacitive touch keypad with LCD display. The environment can be adjusted with the sensor on the panel (standard), or the sensor of the fancoil which it is connected to, or by their arithmetic mean. It also allows the activation of the air purifier accessory (Plasmacluster / UV Lamp) and the electrical heating element.
- **VMF-E4D:** is the variant of the previous code, but with frontal gray Pantone 425C (METAL)
- **VMF-E5B:** white recessed panel, with backlit graphic LCD and capacitive keyboard allows the centralised command/control of a complete hydronic system consisting of Fancoils: up to 64 fancoil zones consisting of a master + 5 slaves. Chiller/heat pump equipped with Modu\_Control, GR3 and pCO<sub>2</sub>/PCO<sub>3</sub> controls (accessory required for RS 485 interface with MODU-485A, AER485, AER485P2 / AER485P1); circulators: up to 12 configurable zone circulators; boiler: boiler consensus management for hot water production; heat recovery units: consents up to 3 per programmable recovery units based on the timing and/or by measuring the air quality obtained with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverting/circulator valve, integrated resistor, accumulation temperature sensor, anti-legionella circuit.
- **VMF-E5N:** this is the variant of the previous code, but with black plastic.
- **VMF-VOC :** accessories for measuring air quality (see related point in the description of the VMF-E5B).
- **VMF-CRP:** accessory module for the control of the boilers, pumps and heat recovery units.
- **VMF-SIT3:** Interface cards that allow you to connect the thermostats VMF and VMF-E0-E1 to a fan motor with high power (for selection see all the documentation of the thermostat and the fan coil).
- **VMF-SW:** water sensor may be used in place of the standard supplied with VMF-E0, VMF-E1 and VMF-E18 thermostats for the installation upstream of the valve.
- **VMF-SW1:** additional water sensor may be used for 4-pipe systems with VMF-E1 and E18 thermostats for the maximum control in the cold range.
- **VMF-ACS3KM:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated single phase 3kW resistor command, Anti-legionella and temperature sensor).
- **VMF-ACS3KTN:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated three-phase 3kW resistor command, Anti-legionella and temperature sensor).
- **VMF-ACS6KTN:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated three phase 6kW resistor command, Anti-legionella and temperature sensor).
- **VMF-ACS8KTN:** electrical panel for the complete command/control for hot water storage (3-way control valve, integrated three phase 8kW resistor command, Anti-legionella and temperature sensor).
- **GLL\_N:** FCL\_N grid units, equipped with thermostat card for serial communication with the accessory functions equivalent and VMF-E1 (this grid is a mandatory accessory for the units FCL N);
- **GLLI\_N:** FCLLI\_N grid units, equipped with thermostat card for serial communication with the accessory functions equivalent and VMF-E18, (this grid is a mandatory accessory for the units FCLLI N);

## Dimensions (mm)



	A [mm]	B [mm]	C [mm]
VMF-E5B / VMF-E5N	138	110	45
VMF-E4 / VMF-E4D	125	80	11
VMF-ACS	354	544	135
VMF-VOC	79	81	26



## Selection 1 • Compatibility of thermostats for serial communication and control interface for MASTER units

mod.	Versions	Note	VMF-E0	VMF-E1	VMF-E18	VMF-E2	VMF-E2D	VMF-E2H	VMF-E4 / VMF-E4D	GLL N	GLLI N
FCX	AS - UA - B		•	•	-	•	-	-	•	-	-
	U		•	•	-	• (7)	• (7)	-	•	-	-
	P - PPC - PO - PV		•	•	-	-	-	-	•	-	-
FCXI	AS		-	-	•	•	-	-	•	-	-
	U		-	-	•	• (7)	• (7)	-	•	-	-
	P		-	-	•	-	-	-	•	-	-
HL	S - SM		•	•	-	-	-	•	•	-	-
	N	(1)	-	-	-	-	-	-	-	-	-
UL	S		•	•	-	-	• (7)	-	•	-	-
	P		•	•	-	-	-	-	•	-	-
FHX	R		-	-	-	-	-	-	•	-	-
	UV	(7)	•	•	-	•	-	-	•	-	-
VEC	UVP - UVPO		•	•	-	-	-	-	•	-	-
			•	•	-	-	-	-	•	-	-
FCL		(8)	-	-	-	-	-	-	•	•	-
FCLI		(8)	-	-	-	-	-	-	•	-	•
VED			•	•	-	-	-	-	•	-	-
FCW	N		•	•	-	-	-	-	•	-	-
DUALJET			-	-	-	-	•	-	•	-	-

## Selection 2 • Compatibility of VMF-E5 7 VMF-E5B centralised control

mod.	Versions	Note	VMF-E5N / VMF-E5B
FCX	AS - U - UA - B	(2)	•
	P - PPC - PO - PV	(2)	•
FCXI	AS - U - P	(2)	•
	S - SM	(2)	•
HL	N	(1)	-
	S	(2)	•
UL	P	(2)	•
	RI	(2)	•
FHX	UV - UVP - UVPO	(2)	•
VEC		(2)	•
FCL		(2)	•
FCLI		(2)	•
VED		(2)	•
FCW	N	(2)	•
DUALJET		(2)	*

## Selection 3 • Compatibility of heat pumps with electrical panel for domestic hot water management

mod.	Versions	Note	VMF-ACS3KM	VMF-ACS3KT	VMF-ACS6KT	VMF-ACS8KT
ANL	H	(3) (4)	•	•	•	•
ANLI	Tutte	(4)	•	•	•	•
ANK	Tutte	(4)	•	•	•	•
SRA	Tutte	(4)	•	•	•	•
SRP-V1	Tutte	(4)	•	•	•	•
NRL	H	(3) (4)	•	•	•	•
NRC	H	(3) (4)	•	•	•	•
WSH	Tutte	(4)	•	•	•	•

## Selection 4 • Compatibility of modules and additional sensors

mod.	Versions	Note	VMF-CRP	VMF-VOC	VMF-SIT3
VMF-E5N/ E5D	Tutte	(5) (6)	•	• (6)	
VED	Tutte	(9)			•
RePuro		(5) (6)	•	• (6)	
HRS		(5) (6)	•	• (6)	

### Notes:

The versions with the accessories hanging MA or MP, can be treated equally to their respective versions FCX AS U FCX, FCX AU;

(1) This version includes the thermostat E0-VMF and VMF-E2H command interface already installed, these features make these models suitable for operation as a single unit or function of the MASTER microzone plants (plants consist of a single zone, without centralized control VMF-E5N / VMF-E5B);

(2) To be compatible with the centralized control of VMF-E5N / VMF-E5B, a fan must be set as MASTER of the area, therefore this must be equipped with the thermostat for serial communications, or VMF VMF-E1-E18 and combined with a user interface ( VMF-E2, or VMF VMF-E2H-E4), or units FCL / FCLI equipped with a thermostat on the grid GLL\_N / GLLI\_N, combined with a command interface VMF-E4 / VMF-E4D ;

(3) The heat pumps with integrated storage are not suitable for production of hot water;

(4) To know the maximum temperature of hot water production (plant and / or health) refer to the limits on the operating unit technical manual;

(5) All types of systems that provide centralized control of VMF-E5N / VMF-E5B, are compatible with the accessory modules (maximum 4) VMF-CRP, and each module can function as a pump controller (4 for each accessory module) or boiler control and recovery (with ON / OFF control and management of 3 recovery boiler in addition to 3 accessories VMF-VOC);

(6) The compatibility of the probe VMF-VOC is only related to the presence of the accessory module in the system with VMF-CRP control function recovery;

(7) VMF-E2: Only for size FCX62U-64U-82U -84U-102U, FCXI80U, FHX62UV-82UV, for other sizes install VMF-E2D, side connections

(8) units must be included in boxes FCLI GLLI\_N mandatory accessory grid, this grid is equipped with a card thermostat same rights as VMF-E18 models.

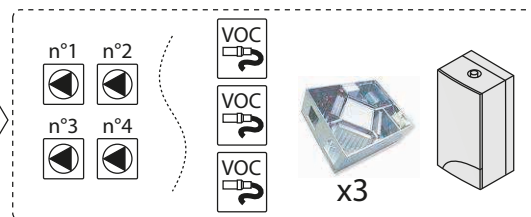
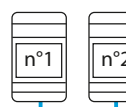
FCL cassette units must provide the mandatory accessory GLL\_N grid, this grid is equipped with a card equivalent and thermostat models VMF-E1. To use one of these drives as MASTER is necessary to provide the command interface VMF-E4;

(9) Accessory units required for the combination of VED with thermostats or VMF VMF-E0-E1. Using a VMF-SIT3 for each unit;

(\*) Contact us

- A maximum number of 4 VMF-CRP modules can be installed and each one can perform several tasks based on the type of setting:
  - Control 4 pumps
  - Control 3 heat recovery units and 3 VOC sensors (in this case the correct number of VMF-VOC accessories must be purchased)
  - Control a boiler
- The only requirement to install VMF-CRP modules is the presence of a VMF-E5 centralised control

## VMF-CRP

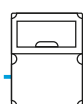


## Selection 4:

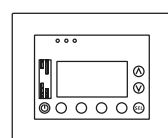
- The VMF-ACS accessory allows to control the different components needed to produce domestic hot water; for detailed information on the types of systems manageable by VMF-ACS, refer to technical documentation of the accessory

**WARNING:** in the case where the plant is provided with accessory Multicontrol it will not be possible to use the accessory VMF-ACS, since the production of domestic hot water will be controlled only through the accessory Multicontrol.

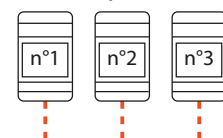
## VMF-ACS



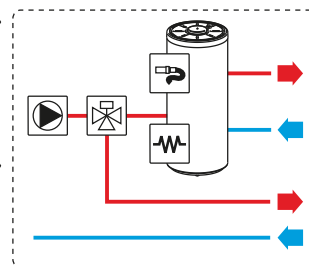
## Multicontrol



## VMF-CRP (Multicontrol)



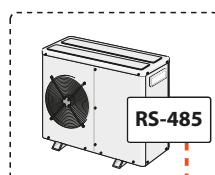
## Selection 3:



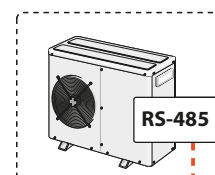
## Selection 2:

**WARNING::** Each chiller must be provided with the appropriate communications accessory Modu-485A

## Chiller 1 (Multicontrol)

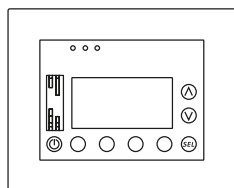


## Chiller 4 (Multicontrol)



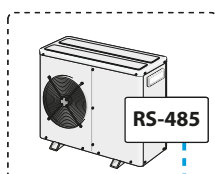
MODbus RS485 Multicontrol

## VMF-E5

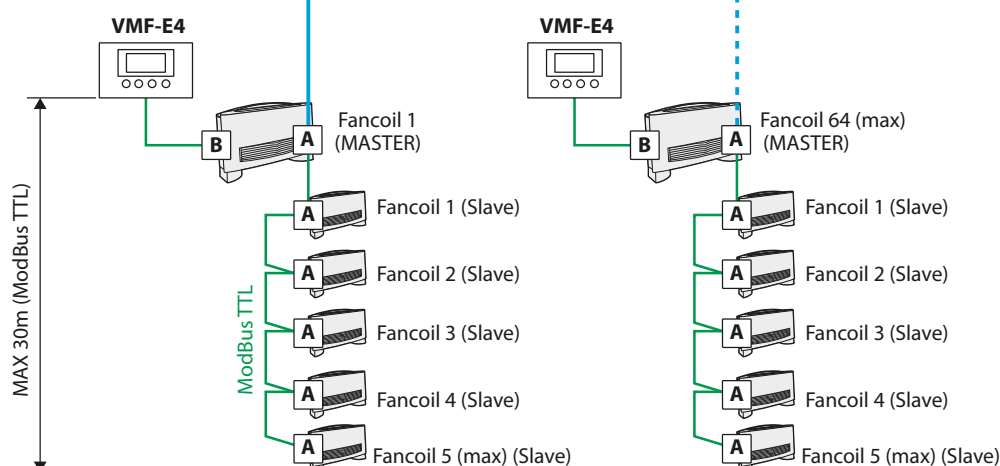


MODbus RS485 (MAX 1000m)

## Chiller



## Selection 1:



**A**

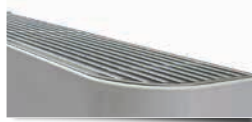
Thermostat for serial connection VMF-E0 / VMF-E1 / VMF-E18

**B**

Commands interface for MASTER unit VMF-E2 / VMF-E2H / VMF-E4

# Climafon

Thermoconvectors  
Vertical installation residential use



Flat grid, fixed  
with aluminum fins



Aermec presents the brand new natural convection heating system in the **CLIMAFON** system.

**CLIMAFON** is born from long experience in the heat exchange field gained within the Giordano Riello International Group, a group in which Aermec is the leading company.

**CLIMAFON** is a system terminal that works on the basis of natural convection: the air is heated through an exclusive finned exchange and is sent into the room through a flue effect.

## Features

- **Enhanced Comfort:** CLIMAFON heats rooms quickly and naturally because it basis its operation on air moved by simple convection. The use of CLIMAFON with low temperature heating systems (heat pump, condensation boiler, geothermal and solar...) ensures that the rooms are heated without drying the air. It causes a pleasant sensation of well-being that helps to survive even the longest and harshest winters in total relaxation.
- **Best quality of the air we breath:** the air temperature of the air leaving CLIMAFON is such as not to allow the toasting of the powder in the environment. The result is healthy, clean air. In addition to our health, winners also include the walls of our house (CLIMAFON spells the end to the blackening of walls typical of radiator systems).
- **Energy saving:** the innovative finned exchanger ensures high energy efficiency thanks the possibility of effective use at low temperatures of the warm supply water.
- **Operation at full capacity achieved more quickly:** CLIMAFON has much smaller water content. This enables it to be very fast in heating times and permits it to be used only where it is useful. The speed it takes CLIMAFON to reach full capacity operation has been checked by TÜV (world leader in product assessment and verification).
- **Greater security:** CLIMAFON's outer surface reaches a top temperature of 43°C, a value that is totally harmless for our body (the risk of burning is nil). Its rounded form without sharp edges makes the room a safer environment especially for children.
- **Greater care to appearance:** the soft flowing, modern and elegant lines give CLIMAFON greater appeal that enables it to be integrated with all types of furnishing whether it is traditional or modern.
- **Easier and faster installation:** CLIMAFON is much lighter than a radiator with the same capacity; just one person is needed to handle and install it quickly and easily on all types of wall. CLIMAFON is fitted with an installation template that means the unit can be assembled after the building work has been completed. Costly masonry work typical of radiator installation is avoided: just four blocks are required for fixing CLIMAFON to the wall.



## Versions

- Available in four sizes Flat grid, fixed with aluminum fins.
- The versions available are double (4 rows of pipes) or treble (6 rows of pipes). Water connections can be reversed during installation phase

## Selection

By combining the various options, each model can be configured.

### Code:

CLIMAFON

### Size :

1, 2, 3, 4

### Coil :

2 - Double

3 - Treble

### Grille:

P - Flat grid, fixed with aluminum fins

Commercial code example: **CLIMAFON 23P**

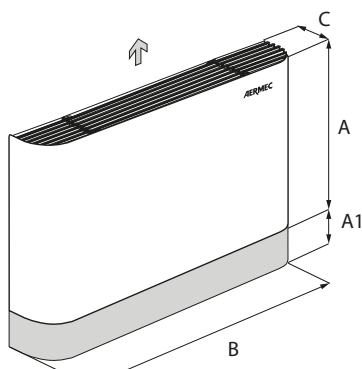
## Technical data

Mod. CLIMAFON		12P	13P	22P	23P	32P	33P	42P	43P
Heating capacity	W	910	1005	1350	1540	1750	2001	2205	2515
Water flow rate	l/h	78	87	116	135	150	176	190	221
Water pressure drop	kPa	0,22	0,26	0,50	0,72	0,95	1,36	1,31	1,91
Water contents	l	0,5	0,6	0,8	1,1	1,0	1,4	1,1	1,6
Coil connections	ø	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
Rows of pipes	ø	2	3	2	3	2	3	2	3

### Heating (in accordance with UNI EN 442):

- room air temperature 20 °C; hot water temperature (in/out) 75/65°C; ΔT water 50 °C

## Dimensions (mm)



Mod. CLIMAFON		12P	13P	22P	23P	32P	33P	42P	43P
Height	A mm	630	630	630	630	630	630	630	630
Width	B mm	600	600	800	800	1000	1000	1200	1200
Depth	C mm	140	140	140	140	140	140	140	140
Weight	kg	12	13	15	16	18	19	21	22

Cod.: SCFONU01 / 1501

# Climabox

Recessed wall-mounted convection heater



**Climabox** is the innovative built-in wall convection radiator for heating systems. It was created to meet the needs for space rationalization according to modern architecture criteria for interiors and the current need for energy saving.

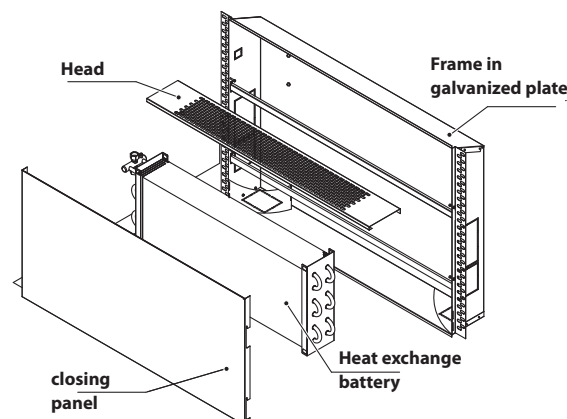
## Characteristics

- Available in 3 sizes with double or triple battery.
- **Climabox** consists of several parts to be assembled:
  1. **Frame in galvanized** and painted plate that allows the heat exchanger to be installed in the wall.
  2. **Heat exchanger**, designed for maximum intensification of the natural convection effect, constructed of copper piping and fining.
  3. **Closing panel** supplied, which allows the materials, desired look and colour of the panel to be customized. Once the work is complete, the heating unit will be completely hidden from view.
  4. **Head** Located on the upper horizontal part of the panel, it is available with a fixed metallic grille.

parts of the frame are treated so they can be painted with the same paint as the wall.

The **Climabox** convection heater is the ideal terminal for heating any room. Heat is supplied instantly and uniformly distributed throughout the area. It can be added to a heating system powered by a boiler, district heating system or heat pump. The possibility of easily removing the cover allows for thorough cleaning of the interior.

Ease of installation with reversible water attachments in the installation phase. Full compliance with safety and injury prevention regulations



The closing panel and all of the visible

## Unit choice

Any model can be configured by changing the available options.

### Logo:

CLIMABOX

### Size:

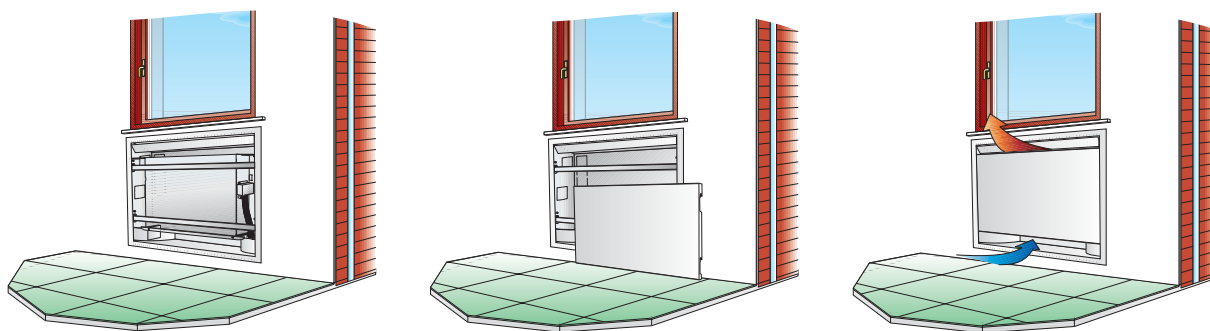
2, 3, 4

### Battery:

- 2 - Double
- 3 - Triple

### Grille:

Fixed grille



## Technical data

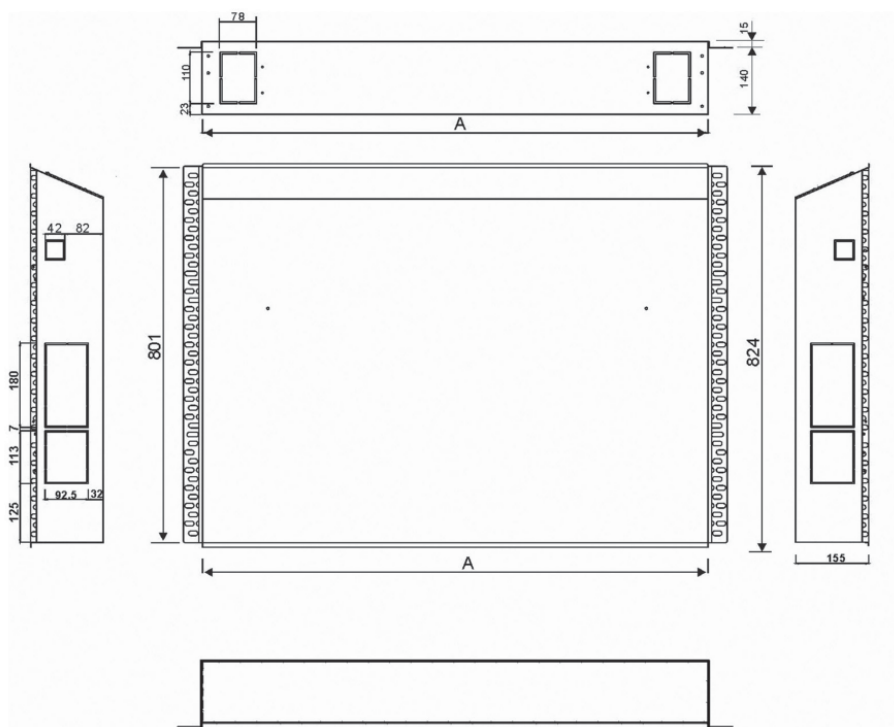
Mod.		CBX 22	CBX 23	CBX 32	CBX 33	CBX 42	CBX 43
Thermal power	W	1220	1330	1610	1755	2005	2180
Water flow rate	l/h	105	114	138	151	172	187
Water pressure drop	kPa	0,5	0,72	0,95	1,36	1,31	1,91
Water content	l	0,8	1,1	1	1,4	1,1	1,6
Battery connectors	ø gas	1/2" Female					

## Data in compliance with standard UNI EN 442

### HEATING

Water input temperature	75 °C
Water output temperature	65 °C
room temperature	20 °C ( $\Delta T_0=50$ °C)

## Dimensions (mm)



CHF			22	23	32	33	42	43
Height	A	mm	155	155	155	155	155	155
Width	A	mm	884	884	1084	1084	1284	1284
Exchanger width	mm		625	625	825	825	1025	1025

# HEAT RECOVERY UNIT

Objective air quality and energy saving: Aermec offers a large range of air-air heat recovery units for industrial and commercial systems and for Controlled Mechanical Ventilation Systems for residential. The heat recovery units, provided with appropriate accessories (heat exchange coils, heat pump refrigerant circuit, etc.), actively participate in the air treatment providing an important contribution to the air conditioning of the spaces served. The catalogued range of nominal available air flow rates is from 100 to around 16.100 m<sup>3</sup>/h.

HEAT RECOVERY UNITS		Air flow rate (m <sup>3</sup> /h)	Pot. frig. (kW)	Cool.Cap. (kW)	Page
REPURO	With cross-flow exchanger	100-650	-	-	128
TRS	with enthalpy exchanger	170-1180	-	-	136
RPL	Countercurrent flow heat recovery unit	200-3900	-	-	138
RPLI	Countercurrent flow heat recovery unit inverter	200-3900	-	-	142
RPF	High performance version	200-4600	-	-	146
URX_CF	With cross-flow exchanger and refrigerant circuit	750-3300	-	-	150
URHE_CF	High efficiency version with cross-flow exchanger and refrigerant circuit	1000-3300	-	-	154
ERSR	High efficiency version with rotary recovery exchanger	1100-16100	-	-	158

## RePuro Heat recovery unit



maximum Efficiency  
Seasonal energy  
(See Technical Data)



Regulations  
(UE):  
1253/2014  
1254/2014



Variable Multi Flow  
VMF

## RePuroDistribution



### Aermec RePuroDistribution

This complete range of products for air distribution, which in association with the innovative series of units for heat and purification recovery RePuro, offers to designers, installators and end-users an efficient solution, easy in the installation and comfortable in all its cycle of life. Examples of plenums for air distribution, which could be equipped of: electric heater, germicidal lamp, water-exchanger.



PLS  
with multi-way flange



PLS\_M  
with one-way flange

### Characteristics

**RePuro** is an innovative counter-flow heat recovery system which ensures the correct renewal of air to indoor environments. Through the use of up to 90% high efficiency heat exchangers **RePuro** allows the introduction of fresh air at a temperature close to that of the room concerned, reducing energy costs that would be incurred in exchanging the air in traditional ways or by mechanical ventilation alone. PLASMACLUSTER ionising filter. Plasmacluster is capable of reducing the level of pollutants, by decomposing the molecules that form them. The result is in the air: you can finally breathe clean, odour-free ionised air.

#### • Version

**RePuro** standard

**RePuro\_R** with electric pre-heater for continuous operation in cold climates up to -15°C.

#### • Installation

Wall installation and ceiling: (100÷170)

#### upright (250÷650)

- Heat exchanger with hexagonal shape to increase the surface area.
- Heat exchanger easily removed from the front for cleaning or replacement.
- Casing in galvanised sheet steel with internal insulation.
- Standard filter on fresh air G4
- Standard filter on extract air G2.
- Filters can be removed for cleaning or replacement.
- All units are equipped with frost protection system for climates > -10°C.
- High efficiency of 90% and above (UNI EN 308).
- Free-cooling in mid-seasons through the automatic by-pass function (RePuro 250-350-450-550-650).
- **By-pass** no frost (RePuro 450-550-650)
- Ionizer filter **PLASMACLUSTER** as standard.
- Flow rate control 0-100% of nominal air flow rate.

- Direct drive centrifugal fans, with "Brushless" EC high efficiency variable speed electric motors (ERP2015).
- Microprocessor controller with interface capability to the VMF System.
- Monitoring of the units with remote wired control panel (supplied as standard). Innovative design, extremely slim, allows control of functions via a touch keypad with LCD display. The panel cable is 6 metres long supplied as standard.
- Activation of the electric heater in the RePuro\_R version. Front in light grey colour PANTONE COOL GRAY 1C.
- Easy to wall mount with standard supplied mounting plate, or floor mount with anti-vibration mounts AVM accessory.
- Adaptable to existing systems.
- Compact size.
- Quiet operation.
- **The installation requires a condensate drain system.**

## Accessories

- **AVM** : Anti-vibration mounts
- **SSR** : Bearing bracket (RePuro 250-350-450-550-650)
- **FF7** : Air filters for fresh air with F7 efficiency
- **KSAE** : External air temperature sensor
- **PLS** : Plenum with acoustic lining equipped with multi-way flange to ensure a uniform distribution in all treated areas.  
The plenum is configured with:
  - **PLS\_E** electric heater
  - **PLS\_L** germicidal lamp
  - **PLS\_W** water coil (requires accessory valve)
- **PLSM** : Plenum with acoustic lining equipped with one-way flange.  
The plenum is configured with:
  - **PLSM\_E** electric heater
  - **PLSM\_L** germicidal lamp
  - **PLSM\_W** Plenum with acoustic lining equipped with one-way flange)
- **VCH** : Kit consisting of powered 3-way valve, copper couplings and pipes. Combined with

the accessory PLS/PLSM in the configuration with the water heat exchanger. In cooling recovery it requires an accessory tray BC.

- **VCHR** : such as VCH, but with isolation as.
- **VCHD** : such as VCH, but with 2-way valve instead of 3-way one.
- **BC** :Auxiliary condensate drip tray.  
BC10 for vertical installation.  
BC20 for horizontal installation.
- **VMF-E5B** : White recessed panel, with backlit graphic LCD and touch keypad allowing the centralised command/control of a complete hydronic system consisting of:
  - Heat recovery units: up to 3 outputs for heat recovery units programmed according to time-clocks and/or by measuring the air quality obtained with the VMF-VOC accessory;
  - Fan coil units: up to 64 fan coil zones comprising 1 master + maximum 5 slaves;
  - Chiller/heat pump unit equipped with controls Modu\_Control, GR3 and pCO<sup>2</sup> / pCO<sup>3</sup>

(required accessory RS 485 interface respectively MODU-485A, AER485, AER485P2 / AER485P1),

- Circulators: maximum of 12 configurable zone circulators;
- Boiler: boiler enable for hot water production;
- Domestic hot water module: complete management of the production of domestic hot water through the control of diverting valve/circulator, immersion heater, storage tank temperature sensor, anti-legionella cycle.
- **VMF-E5N** : Variant of the **VMF-E5B** panel but with black coloured plastic.
- **VMF-VOC** : Accessory for measuring air quality (see relevant point in the description of the VMF-E5B panel).
- **VMF-CRP** : Accessory module for the control of the boilers, pumps and heat recovery units.

Mod. RePuro	Vers.	100	170	250	350	450	550	650
<b>AVM</b>	All	-	-	•	•	•	•	•
<b>SSR</b>	All	-	-	•	•	•	•	•
<b>FF7</b>	All	170	170	350	350	650	650	650
<b>KSAE</b>	All	•	•	•	•	•	•	•
<b>Delivery plenum with multiway flange</b>								
<b>PLS350</b>		•	•	•	•	-	-	-
<b>PLS350W</b>	(1)	•	•	•	•	-	-	-
<b>PLS350E</b>		•	•	•	•	-	-	-
<b>PLS350L</b>		•	•	•	•	-	-	-
<b>PLS350WE</b>	(1)	•	•	•	•	-	-	-
<b>PLS350WL</b>	(1)	•	•	•	•	-	-	-
<b>PLS350WLE</b>	(1)	•	•	•	•	-	-	-
<b>PLS350LE</b>		•	•	•	•	-	-	-
<b>PLS650</b>		-	-	-	-	•	•	•
<b>PLS650W</b>	(1)	-	-	-	-	•	•	•
<b>PLS650E</b>		-	-	-	-	•	•	•
<b>PLS650L</b>		-	-	-	-	•	•	•
<b>PLS650WE</b>	(1)	-	-	-	-	•	•	•
<b>PLS650WL</b>	(1)	-	-	-	-	•	•	•
<b>PLS650WLE</b>	(1)	-	-	-	-	•	•	•
<b>PLS650LE</b>		-	-	-	-	•	•	•
<b>Delivery plenum with one-way flange</b>								
<b>PLSM350</b>		•	•	•	•	-	-	-
<b>PLSM350W</b>	(1)(2)	•	•	•	•	-	-	-
<b>PLSM350E</b>		•	•	•	•	-	-	-
<b>PLSM350L</b>		•	•	•	•	-	-	-
<b>PLSM350WE</b>	(1)(2)	•	•	•	•	-	-	-
<b>PLSM350WL</b>	(1)(2)	•	•	•	•	-	-	-
<b>PLSM350WLE</b>	(1)(2)	•	•	•	•	-	-	-
<b>PLSM350LE</b>		•	•	•	•	-	-	-
<b>PLSM650</b>		-	-	-	-	•	•	•
<b>PLSM650W</b>	(1)(2)	-	-	-	-	•	•	•
<b>PLSM650E</b>		-	-	-	-	•	•	•
<b>PLSM650L</b>		-	-	-	-	•	•	•
<b>PLSM650WE</b>	(1)(2)	-	-	-	-	•	•	•
<b>PLSM650WL</b>	(1)(2)	-	-	-	-	•	•	•
<b>PLSM650WLE</b>	(1)(2)	-	-	-	-	•	•	•
<b>PLSM650LE</b>		-	-	-	-	•	•	•
<b>Kit for plenum</b>								
<b>VCH</b>	(3)	•	•	•	•	•	•	•
<b>VCHR</b>	(3)	•	•	•	•	•	•	•
<b>VCHD</b>	(3)	•	•	•	•	•	•	•
<b>BC10</b>		•	•	•	•	•	•	•
<b>BC20</b>		•	•	•	•	•	•	•
<b>VMF-system</b>								
<b>VMF-CRP</b>		•	•	•	•	•	•	•
<b>VMF-VOC</b>		•	•	•	•	•	•	•
<b>VMF-E5N</b>		•	•	•	•	•	•	•
<b>VMF-E5B</b>		•	•	•	•	•	•	•

(1) Combination with three-way valve kit required.

(2) If you intend to use all the after-heating coil system, or in all the situations in which the air temperature inside the pipe could provoke condensation on external surfaces of pipe, it is mandatory to isolate adequately the installation components.

(3) in the cold-functioning they require the accessory BC10 o 20

## Technical data

Mod.	RePuro	100	170	250	350	450	550	650
Nominal air flow rate	m <sup>3</sup> /h	100	170	250	350	450	550	650
Available static pressure	Pa	85	20	195	133	100	120	70
Winter recovery efficiency	%	94,4	91,2	91,9	89,4	90,3	88,6	87
Recovered heating capacity	W	957	1573	2329	3171	4118	4940	5734
Winter recovery efficiency	(1) %	90,6	85,3	86,3	82,2	83,7	81	78,4
Recovered heating capacity	(1) W	601	963	1433	1910	2500	2957	3386
Summer recovery efficiency	%	90,6	85,3	86,4	82,2	83,7	81	78,5
Recovered cooling capacity	W	180	289	430	573	750	887	1015

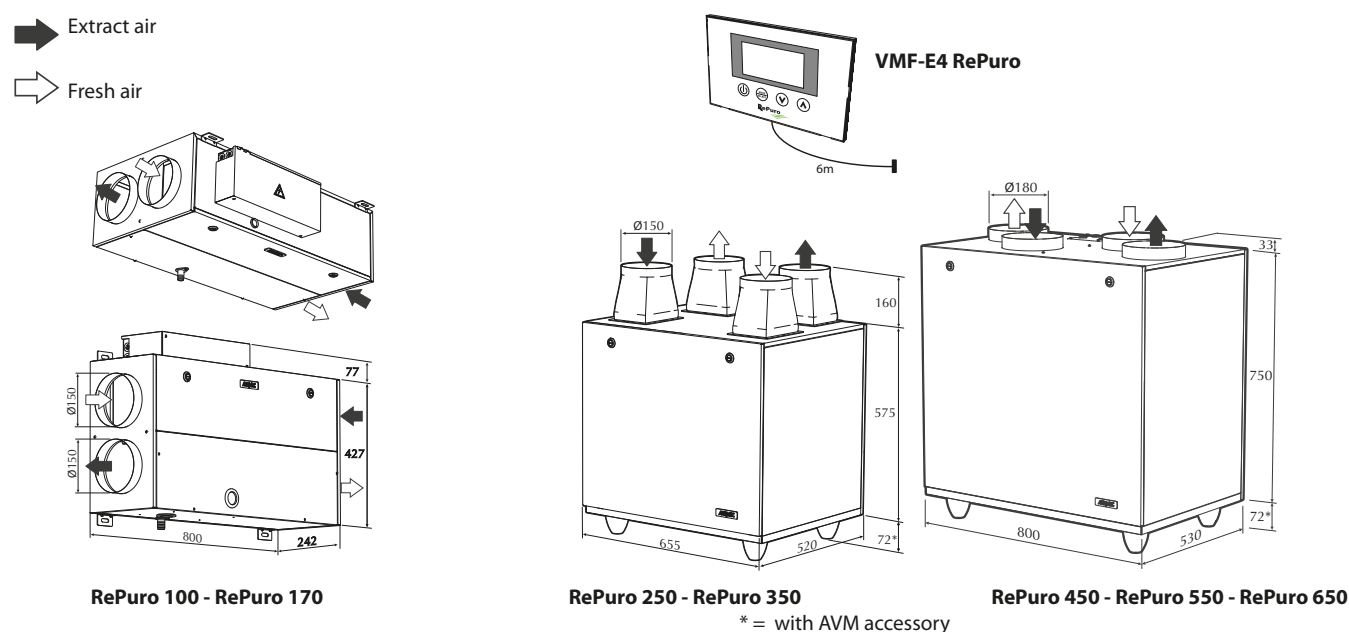
Nominal air flow rate	(2) m <sup>3</sup> /h	75	125	150	200	300	350	450
Available static pressure	Pa	135	110	331	376	210	300	270
Winter recovery efficiency	%	95,7	93,2	94,8	93,3	93	92,1	90,3
Recovered heating capacity	W	728	1181	1441	1891	2830	3267	4118
Winter recovery efficiency	%	92,7	88,6	91,1	88,6	88,2	86,6	83,7
Recovered heating capacity	W	462	735	908	1177	1758	2014	2500
Summer recovery efficiency	%	92,7	88,6	91,2	88,7	88,3	86,7	83,7
Recovered cooling capacity	W	138	220	272	353	527	604	750

Nominal air flow rate	(2) m <sup>3</sup> /h	50	75	75	100	150	175	200
Available static pressure	Pa	185	210	426	526	310	430	485
Winter recovery efficiency	%	97	95,7	97,2	96,4	96,2	95,7	95,1
Recovered heating capacity	W	492	728	739	977	1463	1697	1928
Winter recovery efficiency	(1) %	95	92,7	95,3	93,9	93,6	92,7	91,7
Recovered heating capacity	(1) W	315	462	475	623	932	1077	1218
Summer recovery efficiency	%	95	92,7	95,3	93,9	93,6	92,7	91,7
Recovered cooling capacity	W	95	138	142	187	280	323	365

GENERAL DATA								
SEC	kWh/(m <sup>2</sup> a)	-36	-38	-37	-40	-40	-40	-40
CLASS	A	A	A	A	A	A	A	A
Maximum power input	W	45	65	160	180	220	280	360
Power supply	V/ph/Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz	230V/1/50Hz

- **Winter recovery**  
Exhaust air temperature 20°C b.s. 50% u.r.; Fresh air temperature -10°C b.s. 80% u.r.  
(1) Exhaust air temperature 25°C b.s. 27% u.r.; Fresh air temperature 5°C b.s. 50% u.r. (UNI EN308)
- **Summer recovery**  
Exhaust air temperature 26°C b.s. 50% u.r.; Fresh air temperature 32°C b.s. 50% u.r.  
(2) capacities obtained with air flows different from nominal ones.

## Dimensions (mm)



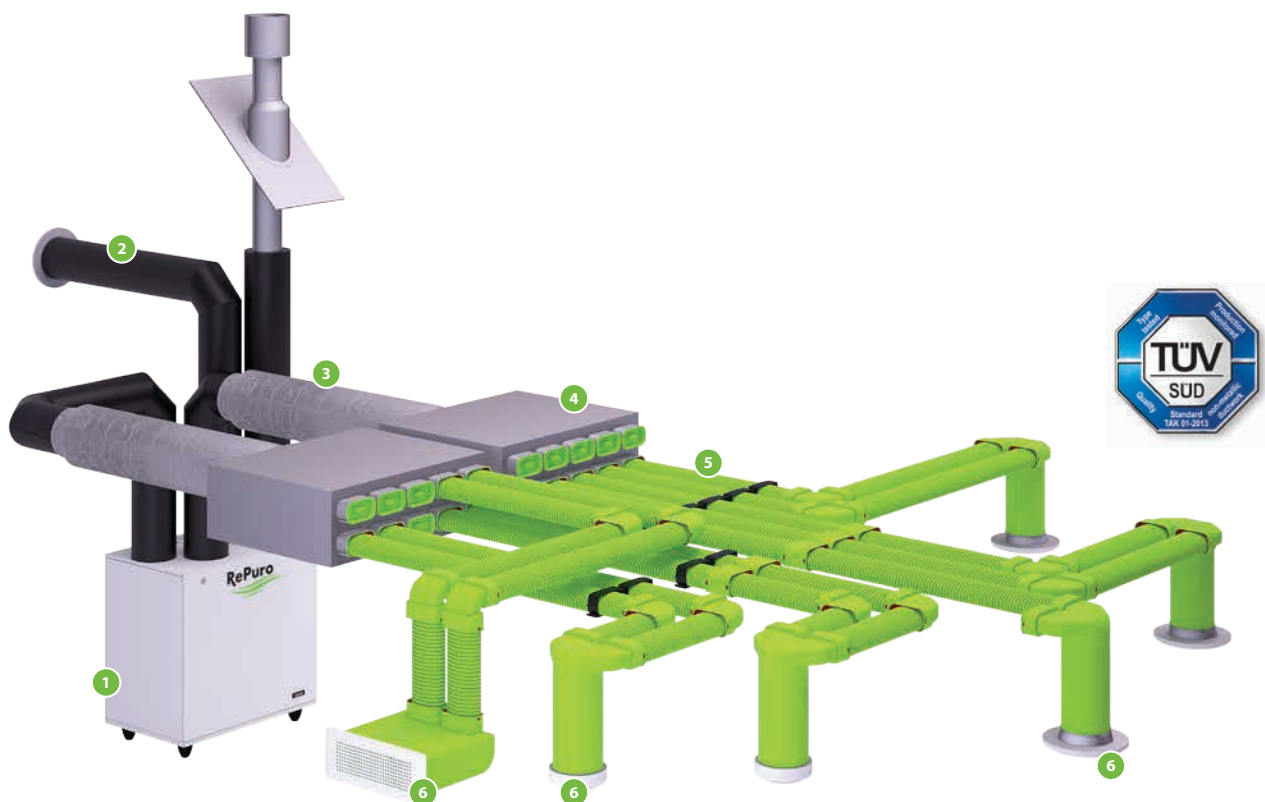
Mod. RePuro	Vers.	100	170	250	350	450	550	650
Weight (kg)	tutte	25	25	48	48	55	55	55



# RePuroDistribution

## Aermec RePuroDistribution

This complete range of products for air distribution, which in association with the innovative series of units for heat and purification recovery RePuro, offers to designers, installators and end-users an efficient solution, easy in the installation and comfortable in all its cycle of life.



- **EASY "PLUG & PLAY" INSTALLATION**
- **LOW DUCT HEIGHT FOR IN-WALL AND SCREED-FLOOR APPLICATION**
- **ANTI-STATIC AND ANTI-BACTERIAL PROPERTIES**
- **LONG-TERM ENERGY EFFICIENT BY MECHANICAL CONNECTIONS**
- **THE DUCT SEMI-OVAL IS CERTIFIED TÜV**

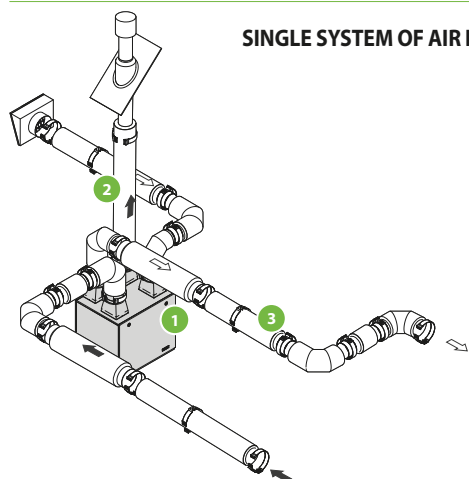
### Please note:

The picture shows as an indication only an example of an installation with semi-oval, semi-rigid antibacterial ducts, composed by:

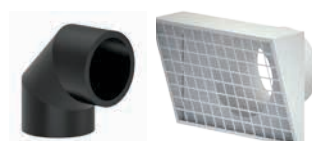
- 1 heat recovery unit RePuro
- 2 Duct with external air intake/expulsion
- 3 Interconnection between RePuro and distribution box
- 4 Distribution box
- 5 Air distribution with semi-oval semi-rigid antibacterial ducts.
- 6 Terminals with nozzles and design grilles

The Aermec range in addition to point n. 5 <sup>5</sup>, provides two other air distribution system:

- air distribution with round semi-rigid ducts;
- air distribution with rigid rectangular ducts.


**SINGLE SYSTEM OF AIR INLET AND EXHAUST CONNECTED TO REPURO**

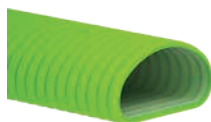
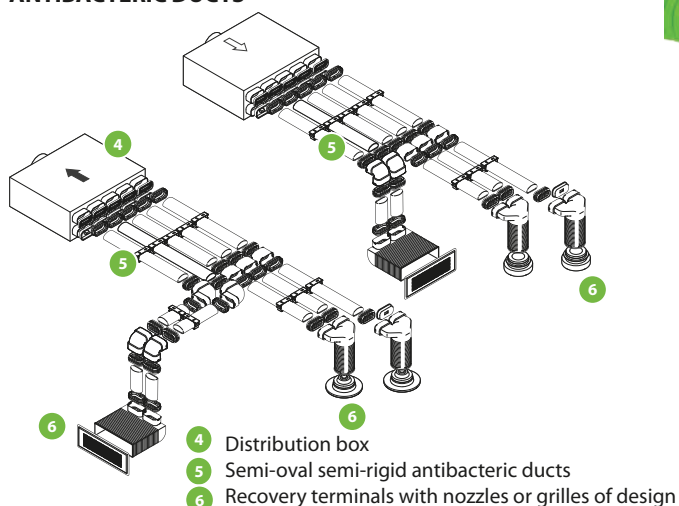
- 1 Heat recovery unit RePuro
- 2 Ducts with external air intake/expulsion
- 3 Interconnection between RePuro and distribution plenum


Some examples  
of the components


		n° in to package	RePuro						
			100	170	250 250R	350 350R	450 450R	550 550R	650 650R
COMPONENTS FOR EXTERNAL AIR INTAKE/EXPULSION SYSTEM									
TV-150	vertical black roof terminal DN150	1	•	•	•	•	-	-	-
T25-150	Underlay for pitched roofs 5-25° DN150	1	•	•	•	•	-	-	-
T45-150	Underlay for pitched roofs 25-45° DN150	1	•	•	•	•	-	-	-
T55-150	Underlay for pitched roofs 35-55° DN150	1	•	•	•	•	-	-	-
TP-150	Rose window deal for flat roofs DN150	1	•	•	•	•	-	-	-
TAP-150B	Suction wall terminal white DN150	1	•	•	•	•	-	-	-
TAP-150N	Suction wall terminal black DN150	1	•	•	•	•	-	-	-
CCI-150	Insulated duct L=2000mm - DN150	1	•	•	•	•	-	-	-
C90-150	90° insulated curve DN150	4	•	•	•	•	-	-	-
C45-150	45° insulated curve DN150	4	•	•	•	•	-	-	-
C30-150	30° insulated curve DN150	4	•	•	•	•	-	-	-
C15-150	15° insulated curve DN150	4	•	•	•	•	-	-	-
GC-150	Clip locking collar for ducts DN150	16	•	•	•	•	-	-	-
CLF-150	Locking collar joint - duct DN150	16	•	•	•	•	-	-	-
SC-150	Silencer L=1000mm - DN150	1	•	•	•	•	-	-	-
TV-180	Terminal with vertical black roof DN180	1	-	-	-	-	•	•	•
T45-180	Underlay for pitched roofs 25-45° DN180	1	-	-	-	-	•	•	•
TP-180	Rose window deal for flat roofs DN180	1	-	-	-	-	•	•	•
TAP-180B	Suction wall terminal white DN180	1	-	-	-	-	•	•	•
TAP-180N	Suction wall terminal black DN180	1	-	-	-	-	•	•	•
CCI-180	insulated duct L=2000mm DN180	1	-	-	-	-	•	•	•
C90-180	90° insulated curve DN180	4	-	-	-	-	•	•	•
C45-180	45° insulated curve DN180	4	-	-	-	-	•	•	•
C30-180	30° insulated curve DN180	4	-	-	-	-	•	•	•
C15-180	15° insulated curve DN180	4	-	-	-	-	•	•	•
GC-180	Locking collar joint DN180	16	-	-	-	-	•	•	•
CLF-180	Collare di fissaggio giunto - canale DN180	16	-	-	-	-	•	•	•
SC-180	Silencer L=1500mm - DN180	1	-	-	-	-	•	•	•
COMPONENTS OF INTERCONNECTIONS BETWEEN RePuro UNITS, PLENUM AND SILENCERS									
CCI-150	Insulated duct L=2250mm DN150	1	•	•	•	•	-	-	-
C90-150	90° insulated curve DN150	4	•	•	•	•	-	-	-
C45-150	45° insulated curve DN150	4	•	•	•	•	-	-	-
C30-150	30° insulated curve DN150	4	•	•	•	•	-	-	-
C15-150	15° insulated curve DN150	4	•	•	•	•	-	-	-
GC-150	Duct clip joints DN150	16	•	•	•	•	-	-	-
CLF-150	Locking collar joint - duct DN150	16	•	•	•	•	-	-	-
SC-150	Silencer L=1000mm - DN150	1	•	•	•	•	-	-	-
CCI-180	Insulated duct L=2250mm DN180	1	-	-	-	-	•	•	•
C90-180	90° insulated curve DN180	4	-	-	-	-	•	•	•
C45-180	45° insulated curve DN180	4	-	-	-	-	•	•	•
C30-180	30° insulated curve DN180	4	-	-	-	-	•	•	•
C15-180	15° insulated curve DN180	4	-	-	-	-	•	•	•
GC-180	Duct clip joint DN180	16	-	-	-	-	•	•	•
CLF-180	Locking collar joint - duct DN180	16	-	-	-	-	•	•	•
SC-180	Silenziatore L=1500mm - DN180	1	-	-	-	-	•	•	•

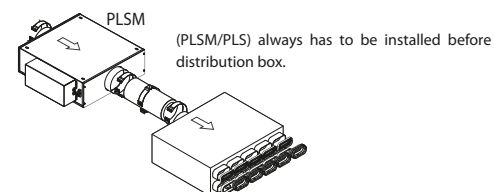
Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website [www.aermec.com](http://www.aermec.com).

# DISTRIBUTION SYSTEM WITH SEMI-OVAL SEMI-RIGID ANTIBACTERIC DUCTS



Aermec, offers the possibility of any post-treatment, of mono-multi flange delivery plenum (PLSM/PLS) with different combinable accessories :

- Electric heater
- Germicidal lamp
- Water exchanger



n° in to package	RePuro						
	100	170	250 250R	350 350R	450 450R	550 550R	650 650R

## COMPONENTS OF DISTRIBUTION SEMI-OVAL SEMI-RIGID BETWEEN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND RECOVERY .

<b>BDX6-150</b>	Distribution box 6 nozzles with deadening DN150	1	.	.	.	.	.	.	.
<b>BDSX10-150</b>	Distribution box 10 noozles with deadening and silencer bafflers DN150	1	.	.	.	.	.	.	.
<b>BDX12-150</b>	Distribution box 12 nozzles with deadening DN150	1	.	.	.	.	.	.	.
<b>BDSX15-180</b>	Distribution box 15 nozzles with deadening and silencer bafflers DN180	1	-	-	-	-	.	.	.
<b>CO30</b>	Semi-oval semi-rigid antibacteric duct L=30	1	.	.	.	.	.	.	.
<b>CO50</b>	Semi-oval semi-rigid antibacteric duct L=50m	1	.	.	.	.	.	.	.
<b>RDP</b>	Flow regulator for semi-oval semi-rigid antibacteric ducts	10	.	.	.	.	.	.	.
<b>SMC</b>	Mounting bracket for semi-oval semi-rigid antibacteric ducts	10	.	.	.	.	.	.	.
<b>ADT</b>	Sealing ring for semi-oval semi-rigid antibacteric ducts	8	.	.	.	.	.	.	.
<b>CVO</b>	Vertical curve for semi-oval duct	3	.	.	.	.	.	.	.
<b>COO</b>	Horizontal curve for semi-oval semi-rigid antibacteric ducts	2	.	.	.	.	.	.	.
<b>TO</b>	Cap for semi-oval semi-rigid antibacteric ducts	5	.	.	.	.	.	.	.
<b>GCO</b>	Joint for semi-oval semi-rigid antibacteric ducts	4	.	.	.	.	.	.	.
<b>GOO90</b>	90° curve to attach semi-oval semi-rigid antibacteric ducts with round semi-rigid ducts.	1	.	.	.	.	.	.	.
<b>AD125X2</b>	Adaptor for nozzle(x 2) - DN125	1	.	.	.	.	.	.	.
<b>CGP</b>	Collector for flat grille (x 2) - (309x86)	1	.	.	.	.	.	.	.
<b>ADG</b>	Adaptor for grille (140x140)	1	.	.	.	.	.	.	.

## TERMINALS FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR RESIDENTIAL USE

Some examples



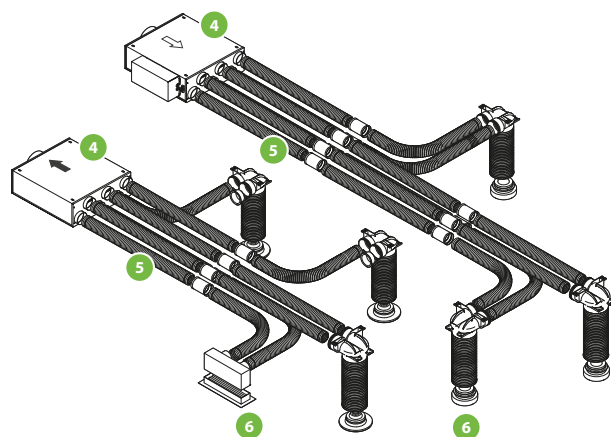
Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website [www.aermec.com](http://www.aermec.com)

<b>GRM</b>	Painted steel grille RAL9010	1	.	.	.	.	.	.	.
<b>GRAI</b>	Stainless steel grille	1	.	.	.	.	.	.	.
<b>BES-125</b>	Extraction nozzle DN 125	6	.	.	.	.	.	.	.
<b>BIM-125</b>	Input nozzle DN125	3	.	.	.	.	.	.	.

## TERMINALS FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR COMMERCIAL USE

<b>GRQM</b>	Square grille with fixed aluminium fins	1	.	.	.	.	.	.	.
<b>GRRM</b>	Rectangular grille with fixed aluminium fins	1	.	.	.	.	.	.	.
<b>GRQB</b>	Square grille with horizontal and vertical swinging aluminium fins	1	.	.	.	.	.	.	.
<b>GRRB</b>	Rectangular grille with horizontal and vertical swinging aluminium fins	1	.	.	.	.	.	.	.
<b>GRQL</b>	Square grille with vertical swinging aluminium fins	1	.	.	.	.	.	.	.
<b>GRRL</b>	Griglia rettangolare con alette verticali orientabili alluminio	1	.	.	.	.	.	.	.

## DISTRIBUTION SYSTEM WITH ROUND SEMI-RIGID DUCTS

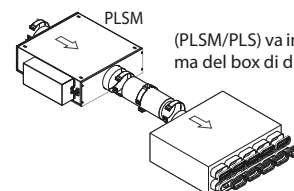


- 4 Distribution box
- 5 Semi-rigid round ducts
- 6 Recovery terminals with nozzles and design grilles



Aermec offers the opportunity for an eventual after-treatment of intake plenum mono-multi flange (PLSM/PLS) with different combinable accessories:

- Electric heater
- Germicidal lamp
- Water exchanger



(PLSM/PLS) va installato sempre prima del box di distribuzione

n° in to package	packa-ge	RePuro					
		170	250	350	450	550	650
		250R	350R	450R	550R	650R	

### COMPONENTS FOR DISTRIBUTION ROUND SEMI-RIGID BETWEEN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND RECOVERY

<b>BDX6T-150</b>	Deadening Distribution box with 6 nozzles Ø75 (internal) - DN150	1	•	•	•	•	-	-	-
<b>BDX10T-150</b>	Distribution box 10 nozzles with deadening and silenced septa Ø75 (internal) - DN150	1	•	•	•	•	-	-	-
<b>BDSX10T-150</b>	Distribution box 10 nozzles with deadening and silenced septa Ø75 (internal) - DN150	1	•	•	•	•	-	-	-
<b>BDSX15T-180</b>	Distribution box 15 nozzles with deadening and silenced septa Ø75 (internal) - DN180	1	-	-	-	-	•	•	•
<b>CT50</b>	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m	1	•	•	•	•	•	•	•
<b>CT50AB</b>	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m Antistatic and antibacteric	1	•	•	•	•	•	•	•
<b>RDPT</b>	Flow regulator for round ducts	10	•	•	•	•	•	•	•
<b>AD125X2T</b>	Adaptor for nozzles 2xØ75mm - DN125	1	•	•	•	•	•	•	•
<b>ADTT</b>	Sealing ring for round ducts Ø75mm	10	•	•	•	•	•	•	•
<b>TCT</b>	Cap for round ducts Ø75mm	5	•	•	•	•	•	•	•
<b>GCT</b>	Joint for round ducts Ø75mm	4	•	•	•	•	•	•	•
<b>ADGR2T</b>	Adaptor for rectangular grille 2xØ75mm (external)	1	•	•	•	•	•	•	•
<b>ADGQ1T</b>	Adaptor for rectangular grille 1xØ75mm (external)	1	•	•	•	•	•	•	•

### TERMINAL FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR RESIDENTIAL USE

Some examples



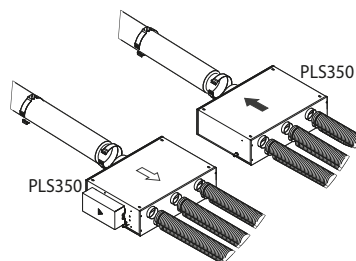
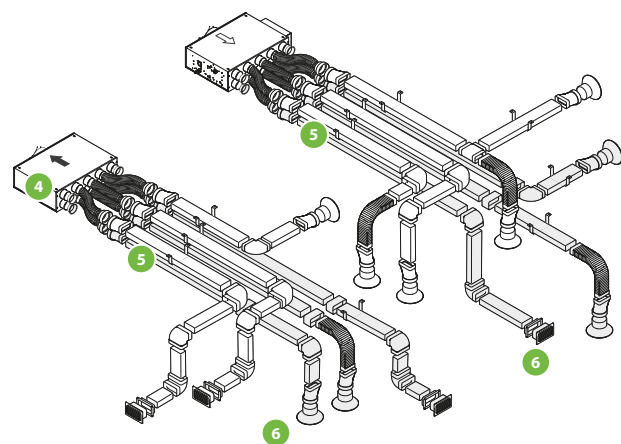
Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website [www.aermec.com](http://www.aermec.com)

<b>GRM</b>	Metal grille RAL9010	1	•	•	•	•	•	•	•
<b>GRAI</b>	Stainless steel grille	1	•	•	•	•	•	•	•
<b>BES-125</b>	Extraction nozzle DN 125	6	•	•	•	•	•	•	•
<b>BIM-125</b>	Input nozzle DN125	3	•	•	•	•	•	•	•

### TERMINAL FOR AIR INTAKE AND INPUT FROM ROOMS SUGGESTED FOR COMMERCIAL USE

<b>GRQM</b>	Square grille with fixed aluminium fins	1	•	•	•	•	•	•	•
<b>GRRM</b>	Rectangular grille with fixed aluminium fins	1	•	•	•	•	•	•	•
<b>GRQB</b>	Square grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•	•
<b>GRRB</b>	Rectangular grille with horizontal and vertical swinging aluminium fins	1	•	•	•	•	•	•	•
<b>GRQL</b>	Square grille with vertical swinging aluminium fins	1	•	•	•	•	•	•	•
<b>GRRL</b>	Rectangular grille with vertical swinging aluminium fins	1	•	•	•	•	•	•	•

## DISTRIBUTION SYSTEM WITH RECTANGULAR RIGID DUCTS



In this system Plenum PLS can be used also as a simple distribution box without any accessory for post-treatment.

- 4 distribution Plenum PLS
- 5 Rectangular rigid ducts
- 6 Recovery terminals with nozzles and design grilles

n° in to package	RePuro						
	100	170	250 250R	350 350R	450 450R	550 550R	650 650R

## COMPONENTS FOR RECTANGULAR RIGID DISTRIBUTION WITHIN PLENUM AND ELEMENTS FOR AIR DIFFUSION AND INTAKE

CPR	Rectangular flat duct 55x110x2000mm	6	.	.	.	.	.	.	.
GRT	Rectangular joint 55x110mm	5	.	.	.	.	.	.	.
CRT	Rectangular terminal frame 55x110mm	4	.	.	.	.	.	.	.
ARC	Rectangular/Circular adaptor 55x110mm/ Ø100	6	.	.	.	.	.	.	.
GRCV90	Vertical crank 90° Rectangular Circular Adaptor 55x110mm	4	.	.	.	.	.	.	.
GRO45	Crank 45° Rectangular Horizontal 55x110mm	8	.	.	.	.	.	.	.
GRO90	Crank 90° Rectangular Horizontal 55x110mm	8	.	.	.	.	.	.	.
GRV90	Crank 90° rectangular vertical 55x110mm	6	.	.	.	.	.	.	.
TR	Rectangular terminal cap	4	.	.	.	.	.	.	.
RMC100	Multi-cone reducer Ø100 - Ø80	4	.	.	.	.	.	.	.
RMC125	Multi-cone reducer Ø125 - Ø100	4	.	.	.	.	.	.	.
RTR	Rectangular T joint 55x110mm	3	.	.	.	.	.	.	.
CR	Rectangular collar 55x110mm	10	.	.	.	.	.	.	.
MFR	Rectangular flexible sleeve 55x110x500mm	1	.	.	.	.	.	.	.
CT50	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m	1	.	.	.	.	.	.	.
CT50AB	Round duct Ø63mm (internal) / Ø75 mm (external) L=50m Antistatic and antibacteric	1	.	.	.	.	.	.	.
RDPT	Flow regulator for round ducts	10	.	.	.	.	.	.	.
ADTT	Sealing ring for round ducts Ø75mm	10	.	.	.	.	.	.	.
CPVC	Glue for PVC	2	.	.	.	.	.	.	.
NAL	Aluminium tape 50x0,3mm Lenght= 50m	5	.	.	.	.	.	.	.

## ACCESSORIES FOR AIR DIFFUSION AND RECOVERY

Some examples



BCI



GRIR



Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website [www.aermec.com](http://www.aermec.com)

GRIR	Rectangular template grille 55x110mm	6	.	.	.	.	.	.	.
GRIC	Circular template grille Ø100mm	10	.	.	.	.	.	.	.
BCI	Circular template nozzle with net Ø100mm	10	.	.	.	.	.	.	.
BFR	Self-adjusting template nozzle Ø100mm	6	.	.	.	.	.	.	.
BA30	Self-adjusting nozzle 30m³/h Ø125mm	5	.	.	.	.	.	.	.
BA60	Self-adjusting nozzle 60m³/h Ø125mm	5	.	.	.	.	.	.	.

Please note: For further informations on the typologies of installations and of accessories, please refer to the dedicated documentation available on Aermec website [www.aermec.com](http://www.aermec.com).

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## TRS

Heat recovery unit with enthalpy exchanger



- **QUICK AND EASY INSTALLATION**
- **FANS COUPLED TO BRUSHLESS DC MOTORS WITH LOW ENERGY CONSUMPTION**

### Features

The TRS heat recovery units allow to join maximum environmental comfort with sure energy saving. Forced ventilation must be created in current air conditioning and treatment plants, which leads to the expulsion of treated air, determining large energy consumption and increase in costs. TRS intends to solve these problems using a static heat recovery unit that saves most of the energy that would otherwise be lost.

**The unit adopts high-efficiency heat recovery with countercurrent flows** which consists of flat sheets of special paper **that allow you to recover both sensible and latent heat (humidity).**

**No condensation forms** by adopting the enthalpy recovery unit: part of the humidity in a flow of air is absorbed by the porous surface and is then transferred completely to the opposite air flow. **Therefore, no condensate drip tray or the relative drain pipe is required.** The high static pressures available allow ducts to be mounted, thereby al-

lowing the extraction or input of air across multiple environments simultaneously.

- Very compact units **that can only be installed horizontally**, which require simple maintenance of the heat exchanger and filters (both removable from the side).
- Automatic free-cooling function.
- Free-cooling in mid-season thanks to the automatic by-pass function.
- Double suction centrifugal fans coupled directly to the high-efficiency Brushless DC electric motors, equipped with adjustable speeds via an electronic control to vary the flow rate.
- Controlling selectable units between flush control panel with an LCD display (**TRSCP1 accessory**) or a kit with flush control panel with a remote-controlled LCD display (**TRSCPR1 accessory**).
- Hexagonal-shaped enthalpy recovery unit to increase the exchange surface.

- Galvanised sheet metal self-supporting panels with insulation.
- Air filters both on the exhaust air (M5 class filter) and the air renewal (F7 class filter), removable laterally to be cleaned or replaced.
- Silent operation.
- The installation does not require a condensate drain system.

### Accessories

The following accessories are available for complete control of the TRS recovery units:

- **TRSCP1: Flush control panel with an LCD display** to control the On-Off, speed selection, programmable weekly timer and the automatic Free-Cooling functions. IR receiver for coupled operation with the IR remote control accessory. **Wall installation recessed in supplied electrical junction boxes "module 502".**
- **TRSCPR1: Remote control and flush control panel with an LCD display** to control the On-Off, speed selection, programmable weekly timer and the automatic Free-Cooling functions. IR receiver for coupled operation with the IR remote control accessory. **Wall installation recessed in supplied electrical**

**junction boxes "module 502".**

Accessories compatibility						
TRS	250	350	500	800	1000	1200
TRSCP1	•	•	•	•	•	•
TRSCPR1	•	•	•	•	•	•



## Technical data

TRS			250	350	500	800	1000	1200
Air flow rate	High-speed	m³/h	260	330	500	750	950	1180
	Average speed	m³/h	260	330	500	660	740	1080
	Low speed	m³/h	170	250	360	560	600	980
Nominal static pressure	(1) High-speed	Pa	70	70	70	70	70	80
	Average speed	Pa	70	70	70	50	40	70
	Low speed	Pa	30	40	35	35	25	55
Sound pressure level	(2) High-speed	dB(A)	27	31	33	38	39	42
	Average speed	dB(A)	26	29	31	36	37	37
	Low speed	dB(A)	22	25	27	32	33	32
Max input current		A	1.1	1.4	2	2.8	3	3.7
Max input power		W	90	120	135	300	310	490
Internal specific fan power	(1)	W/m³/s	1043	1032	1178	990	1238	1570
<b>Winter conditions</b>			(3)					
Efficiency in temperature		%	75.4 (75.5)	77.6 (77.6)	76.5 (76.5)	73 (73)	73.5 (73.5)	71 (71)
Efficiency in enthalpy		%	61 (61)	63.7 (64)	62.3 (64)	59 (61)	59.5 (61)	56.2 (56.2)
Recovered power		kW	2.2 (2.4)	3.1 (3.4)	4.3 (4.8)	6.5 (7.3)	8.2 (9.0)	9.1 (10.8)
<b>Summer conditions</b>			(4)					
Efficiency in temperature		%	62	63	62.5	59	59.5	57
Efficiency in enthalpy		%	60	61	60	57	57.5	54
Recovered power		kW	0.8	1.2	1.7	2.5	3.2	3.7
Electric power supply		V/ph/Hz	230 / 1 / 50					

All recovery units have a minimum dry performance of 67%, measured according to EN308, at outside air conditions of 5°C, and extracted air at 25°C, with a balanced mass flow.

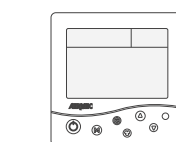
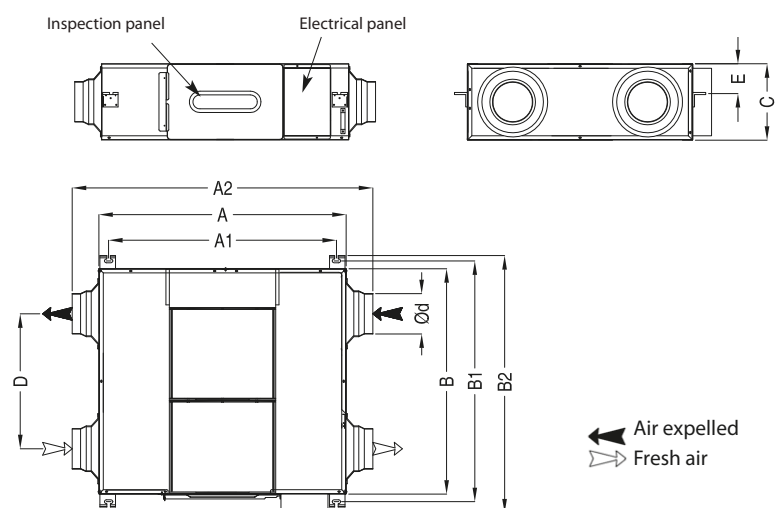
(1) Values referring to the nominal air flow rate including recovery unit and filters.

(2) Referring to 1.5 metres from machine intake in free field.

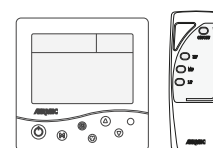
(3) Winter nominal conditions: Outdoor air: -5°C (-10°C) DB, RH 80%; Ambient air: 20°C DB, RH 50%.

(4) Summer nominal conditions: Outdoor air: 32°C DB, RH 50%; Ambient air: 26°C DB, RH 50%.

## Dimensional data (mm)



Wired control panel  
TRSCP1



Remote control  
TRSCPR1

Model	Size [mm]											Net / gross weight [kg]	Packaging dimensions [mm]
	A	A1	A2	B	B1	B2	C	D	D1	Ød	E		
<b>TRS250</b>	885	815	1074	666	720	779	272	342	342	150	110	27 / 32	1125x830x345
<b>TRS350</b>	885	815	1074	806	860	919	272	482	482	150	110	32 / 38	1125x985x345
<b>TRS500</b>	970	910	1130	997	1053	1112	312	728	728	200	38	42 / 49	1190x1150x386
<b>TRS800</b>	1322	1252	1486	882	936	994	390	431	431	250	169	63 / 70	1545x1030x470
<b>TRS1000</b>	1322	1252	1486	1132	1186	1244	390	681	681	250	169	76 / 86	1545x1280x470
<b>TRS1200</b>	1322	1252	1486	1132	1186	1244	390	681	681	250	169	76 / 86	1545x1280x470

## RPL

Countercurrent flow heat recovery unit



### • EASY AND QUICK INSTALLATION • VERSIONS WITH WATER COIL OR ELECTRIC FOR THE POST-HEATING

#### Features

The RPL heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving. It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.

The unit is equipped with a countercurrent heat recovery unit and allows an effective heat exchange between the expulsion air flow and fresh air that is pre-heated or pre-cooled, depending on the season, thus saving the energy that would otherwise be lost with the expelled exhaust air.

They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode..

#### Version for horizontal installation:

**RPL:** Standard average useful static head

of about 120 Pa, with fans orientation type 1 (see example on side)

**RPL\_W:** With water coil

**Cooled/ Hot** for the sizes 030 - 100

**Hot** for the sizes 140 - 400

**RPL\_E:** With electric heating coil

- Double suction centrifugal fans or plug-fan with AC motors (except for the size 400 that uses radial fans with EC motor)
- **Aluminium plate countercurrent flow heat recovery system** with heating efficiency in compliance with the European regulation 1253, housing in condensate collection basin.
- **Ventilation by-pass** of the external air flow equipped with internal damper, with free-cooling and even anti-freeze function.
- **Synthetic filter class M5** according to EN779 placed on the expelled air intake
- **Synthetic filter class F7** according to EN779 placed on the external air inlet

- Self-supporting sandwich panels in galvanised sheet metal with injected polyurethane insulation density 45 kg/m<sup>3</sup> and a thickness of 25 mm. The polyurethane is in compliance with the standard UL 94 class HBF and the panel with the standard NF P 512: 1986 in class M1.
- Condensate collection basin in galvanised steel
- Easy accessible fans, from bottom for the sizes 030-100, from the side for the sizes 140-400
- Accessible fans, from the top and from the bottom for the sizes 030-100, from the side for the sizes 140-400
- **Electronic phase cutting regulation devices, supplied**, that allow to continuously vary the rotation speed of the fans equipped with AC motors (sizes 030-300). The fan with EC motor, of only one size 400, can be controlled with a controller 0-10 Vdc, accessory RVC.

#### Accessories

- **M4F\_:** External module equipped with pre-filters class G4 (according to EN779) to be placed on the external air inlet.
- **MBF\_:** External module with water cooling coil and condensate collection basin (only for sizes 140-400).
- **MBP\_:** Module with post-heating water coil.
- **MBE\_:** Module with electric coil (anti-freeze and/or post-heating function).
- **MSU\_:** Module equipped with silencer baffles. The accessory is supplied in 1 piece.
- **FGC\_:** Circular flanges. The accessory is supplied in 1 piece.
- **P5F:** Dirt filters pressure switch for filter M5.
- **P7F:** Dirt filters pressure switch for filter F7.
- **RVC\_:** Speed regulation devices for unit supplied with fans EC available for the size 400. The accessory is supplied in 2 pieces.



## Compatibility of accessories

RPL	030	050	070	100	140	200	300	400
<b>M4F</b>	M4F03	M4F05	M4F07	M4F10	M4F14	M4F20	M4F30	M4F40
<b>MBF</b>	/	/	/	/	MBF14	MBF20	MBF30	MBF40
<b>MBP</b>	MBP03	MBP05	MBP07	MBP10	MBP14	MBP20	MBP30	MBP40
<b>MBE</b>	MBE03	MBE05	MBE07	MBE10	MBE14	MBE20	MBE30	MBE40
<b>MSU</b>	MSU03	MSU05	MSU07	MSU10	MSU14	MSU20	MSU30	MSU40
<b>FGC</b>	FGC030	FGC050	FGC070	FGC100	FGC140	FGC200	FGC300	FGC400
<b>P5F</b>	P5F	P5F	P5F	P5F	P5F	P5F	P5F	P5F
<b>P7F</b>	P7F	P7F	P7F	P7F	P7F	P7F	P7F	P7F
<b>RVC</b>	/	/	/	/	/	/	/	RVC40

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

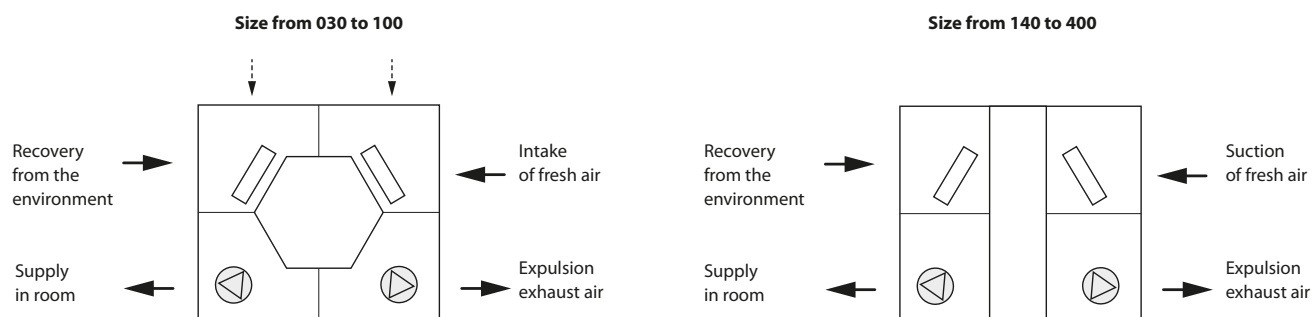
Field	Code
<b>1,2,3</b>	RPL
<b>4,5,6</b>	Size
	030-050-070-100-140-200-300-400
<b>7</b>	Version
	° Standard
<b>8</b>	Installation
	° Horizontal
<b>9</b>	Flow orientation
	° Type 1
	<b>X</b> Type 2
<b>10</b>	Heat exchanger
	° No internal coil
	<b>W</b> Water coil (1)
	<b>E</b> Post-heating electric internal coil

(1) Also to be used with cooled water only for sizes 030-100 including, for sizes 140-400 only be used with hot water.

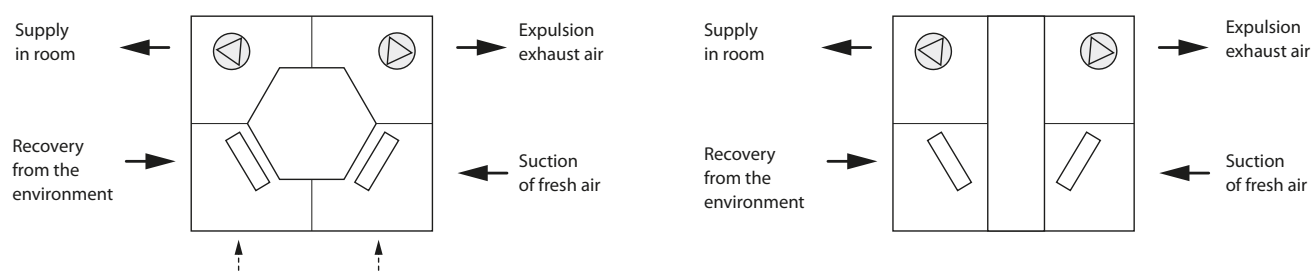
**Example of commercial code:** **RPL030** (Basis heat recovery unit) **RPL030W** (heat recovery unit with water coil), **RPL030X** (heat recovery unit with flow orientation type 2). Each option is represented in a unique way from all the others, so it is not necessary to indicate (within the commercial code) the standard options (identified by °).

## Available orientation

TYPE 1 Standard



TYPE 2 to be requested during order



## Technical data

RPL		030	050	070	100	140	200	300	400
	V/ph/Hz	230V~50	230V~50	230V~50	230V~50	230V~50	230V~50	230V~50	400V/3/50
<b>Type of ventilation unit</b>		* UVNR (non-residential ventilation unit)							
<b>Heat recovery unit</b>									
Heat recovery system type	* type/no	static at countercurrent flow / 1							
Dry heating efficiency	*(1) %	81,1	78,1	76,8	75,3	76,0	76,3	75,5	75,6
Heat capacity recovered (EN308)	(2) kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Nominal air flow rate supply/recovery	* m³/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
	m³/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate	m³/h	200	250	400	550	800	1150	1750	2300
<b>Fans</b>									
<b>Drive</b>		* With speed variator							
Fans	type/no	AC/2	AC/2	AC/2	AC/2	AC/2	AC/4	AC/4	EC/2
Supplied electrical power consumption	kW	0,097	0,137	0,212	0,253	0,384	0,501	0,772	0,792
Recovered electrical power consumption	kW	0,096	0,136	0,212	0,242	0,370	0,476	0,751	0,741
Total input electric power	* kW	0,193	0,273	0,425	0,495	0,755	0,977	1,523	1,534
SFP int	* W/(m³/s)	1225	1500	1305	1302	1224	1140	1123	906
SFP int_lim 2016	W/(m³/s)	1609	1514	1465	1411	1412	1398	1333	1295
Filters face velocity	* m/s	0,8	1,2	1,0	1,4	2,2	2,2	1,9	2,5
Nominal external pressure $\Delta p$	(5) Pa	100	100	125	125	145	145	150	150
Useful static supply pressure	(5) Pa	191	218	169	134	215	143	216	196
Useful static recovery pressure	(5) Pa	196	233	175	152	255	184	248	242
Supplied internal pressure drop $\Delta p$	* Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop $\Delta p$	* Pa	110	213	182	274	228	230	213	244
Fans static efficiency	*(3) %	33,3	33,3	33,3	45	45	45	45	66,9
External / internal leakage	(4)	<3% / 3.9%							
<b>Filters</b>									
Expelled air filter	type/no	M5/1							
External air filter	type/no	F7/1							
Filters energy class		On request							
<b>Sound Data</b>									
sound power level	* dB(A)	55	56	62	59	59	63	63	71

### \* Information in compliance with Annex V of regulation EU no. 1253/2014

SFP Specific Fan Power

(1) relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

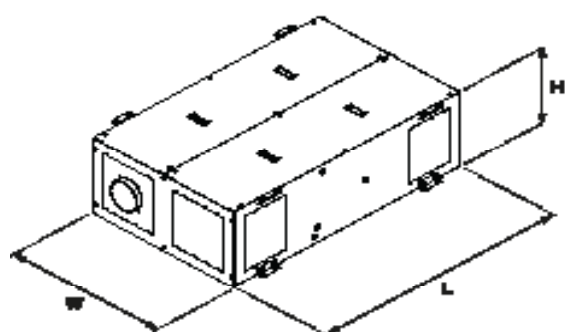
(2) Expelled air: Tbs=25°C; Tbu<14°C. Fresh air: Tbs=5°C

(3) according to regulation EU 327/2011;

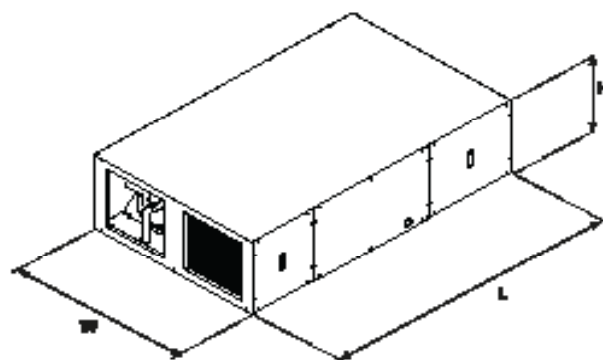
(4) external leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

(5) Performances referring to clean filters

## Dimensions (mm)



030 - 100



140 - 400

RPL			030	050	070	100	140	200	300	400
Height	(H)	mm	400	400	435	435	460	460	600	600
Width	(W)	mm	800	800	945	945	1100	1600	1700	2050
Length	(L)	mm	1300	1300	1600	1600	1800	1800	2350	2350
Weight		kg	89	105	150	150	154	234	374	451

## RPLI

Countercurrent flow heat recovery unit with inverter fan



- **EASY AND QUICK INSTALLATION**
- **VERSIONS WITH WATER COIL OR ELECTRIC FOR THE POST-HEATING**

### Features

The RPLI heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving. It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption. The unit is equipped with a countercurrent heat recovery unit and allows an effective heat exchange between the expulsion air flow and fresh air that is pre-heated or pre-cooled, depending on the season, thus saving the energy that would otherwise be lost with the expelled exhaust air. They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

#### Version for horizontal installation:

**RPLI:** Standard average, with fans orientation type 1 (see example on side)

**RPLI\_W:** With water coil  
**Cooled/ Hot** for the sizes 030 - 100  
**Hot** for the sizes 140 - 400

**RPLI\_E:** With electric heating coil

- Plug-fan with EC motors
- **Aluminium plate countercurrent flow heat recovery system** with heating efficiency in compliance with the European regulation 1253, housing in condensate collection basin.
- **Ventilation by-pass** of the external air flow equipped with internal damper, with free-cooling and even anti-freeze function.
- **Synthetic filter class M5** according to EN779 placed on the expelled air intake
- **Synthetic filter class F7** according to EN779 placed on the external air inlet
- Self-supporting sandwich panels in galvanised

sheet metal with injected polyurethane insulation density  $45 \text{ kg/m}^3$  and a thickness of 25 mm. The polyurethane is in compliance with the standard UL 94 class HBF and the panel with the standard NF P 512: 1986 in class M1.

- Condensate collection basin in galvanised steel
- Easy accessible fans, from bottom for the sizes 030-100, from the side for the sizes 140-400
- Accessible fans, from the top and from the bottom for the sizes 030-100, from the side for the sizes 140-400
- The fan, can be controlled with a controller 0-10 Vdc, accessory RVC.

### Accessories

- **M4F\_:** External module equipped with pre-filters class G4 (according to EN779) to be placed on the external air inlet.
- **MBF\_:** External module with water cooling coil and condensate collection basin (only for sizes 140-400).
- **MBP\_:** Module with post-heating water coil.
- **MBE\_:** Module with electric coil (anti-freeze and/or post-heating function).
- **MSU\_:** Module equipped with silencer baffles. The accessory is supplied in 1 piece.
- **FGC\_:** Circular flanges. The accessory is supplied in 1 piece.
- **P5F:** Dirt filters pressure switch for filter M5.
- **P7F:** Dirt filters pressure switch for filter F7.
- **RVC\_:** Speed regulation devices for unit supplied with fans EC available for the size 400. The accessory is supplied in 2 pieces.

## Compatibility of accessories

RPLI	030	050	070	100	140	200	300	400
<b>M4F</b>	M4F03	M4F05	M4F07	M4F10	M4F14	M4F20	M4F30	M4F40
<b>MBF</b>	/	/	/	/	MBF14	MBF20	MBF30	MBF40
<b>MBP</b>	MBP03	MBP05	MBP07	MBP10	MBP14	MBP20	MBP30	MBP40
<b>MBE</b>	MBE03	MBE05	MBE07	MBE10	MBE14	MBE20	MBE30	MBE40
<b>MSU</b>	MSU03	MSU05	MSU07	MSU10	MSU14	MSU20	MSU30	MSU40
<b>FGC</b>	FGC030	FGC050	FGC070	FGC100	FGC140	FGC200	FGC300	FGC400
<b>P5F</b>	P5F	P5F	P5F	P5F	P5F	P5F	P5F	P5F
<b>P7F</b>	P7F	P7F	P7F	P7F	P7F	P7F	P7F	P7F
<b>RVC</b>	RVC03	RVC05	RVC07	RVC10	RVC14	RVC20	RVC30	RVC40

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

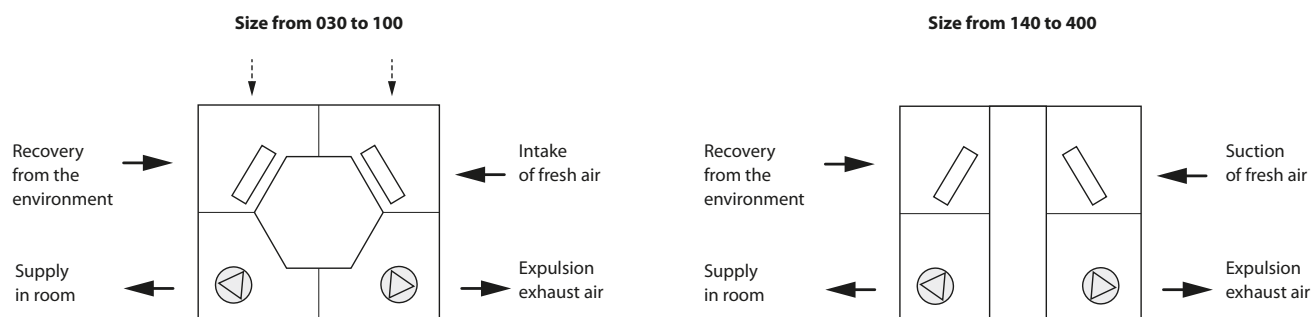
Field	Code
<b>1,2,3,4</b>	RPLI
<b>5,6,7</b>	Size
	030-050-070-100-140-200-300-400
<b>8</b>	Version
	° Standard
<b>9</b>	Installation
	° Horizontal
<b>10</b>	Flow orientation
	° Type 1
	<b>X</b> Type 2
<b>11</b>	Heat exchanger
	° No internal coil
	<b>W</b> Water coil (1)
	<b>E</b> Post-heating electric internal coil

(1) Also to be used with cooled water only for sizes 030-100 including, for sizes 140-400 only be used with hot water.

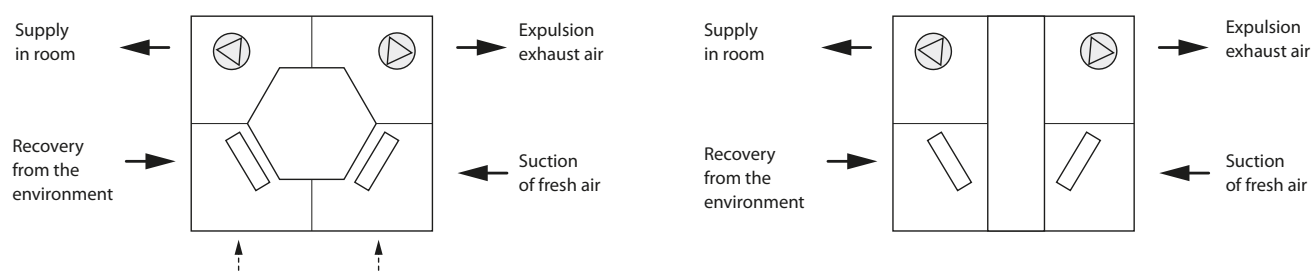
**Example of commercial code:** **RPL030** (Basis heat recovery unit) **RPLI030W** (heat recovery unit with water coil), **RPLI030X** (heat recovery unit with flow orientation type 2). Each option is represented in a unique way from all the others, so it is not necessary to indicate (within the commercial code) the standard options (identified by °).

## Available orientation

TYPE 1 Standard



TYPE 2 to be requested during order



## Technical data

RPLI			030	050	070	100	140	200	300	400
	V/ph/Hz		230V~50	230V~50	230V~50	230V~50	230V~50	230V~50	400V/3/50	400V/3/50
<b>Type of ventilation unit</b>		*	UVNR (non-residential ventilation unit)							
<b>Heat recovery unit</b>										
Heat recovery system type		* type/n°	static at countercurrent flow / 1							
Dry heating efficiency		*(1) %	81,1	78,1	76,8	75,3	76,0	76,3	75,5	75,6
Heat capacity recovered (EN308)		(2) kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Nominal air flow rate supply/recovery	*	m³/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
		m³/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate		m³/h	200	250	400	550	800	1150	1750	2300
<b>Fans</b>										
<b>Drive</b>		*	Segnale analogico su ventilatore EC (0-10Vdc)							
Fans		type/n°	EC/2	EC/2	EC/2	EC/2	EC/2	EC/4	EC/4	EC/2
Supplied electrical power consumption		kW	0,043	0,084	0,113	0,215	0,347	0,410	0,546	0,872
Recovered electrical power consumption		kW	0,042	0,080	0,113	0,209	0,328	0,376	0,498	0,818
Total input electric power		* kW	0,085	0,164	0,226	0,424	0,675	0,786	1,044	1,690
SFP int		* W/(m³/s)	543	903	694	1116	1095	918	770	999
SFP int_lim 2018		W/(m³/s)	1329	1234	1185	1131	1132	1118	1053	1015
Filters face velocity		* m/s	0,8	1,2	1,0	1,4	2,2	2,2	1,9	2,5
Nominal external pressure Δp		(5) Pa	100	100	125	125	145	145	150	150
Useful static supply pressure		(5) Pa	506	338	279	638	412	469	462	303
Useful static recovery pressure		(5) Pa	511	353	285	656	452	509	493	349
Supplied internal pressure drop Δp		* Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop Δp		* Pa	110	213	182	274	228	230	213	244
Fans static efficiency		*(3) %	61,7	61,7	61,7	57,2	57,2	61,8	66,9	62,7
External / internal leakage		(4)	<3% / 3,9%							
<b>Filters</b>										
Expelled air filter		type/n°	M5/1							
External air filter		type/n°	F7/1							
Filters energy class			On request							
<b>Sound Data</b>										
Sound power level		* db(A)	On request							

### \* Information in compliance with Annex V of regulation EU no. 1253/2014

SFP Specific Fan Power

(1) relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

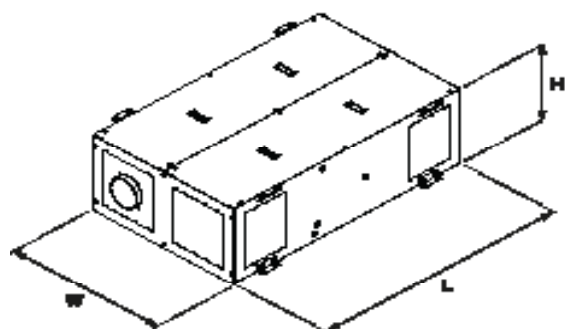
(2) Expelled air: Tbs=25°C; Tbu<14°C. Fresh air: Tbs=5°C

(3) according to regulation EU 327/2011;

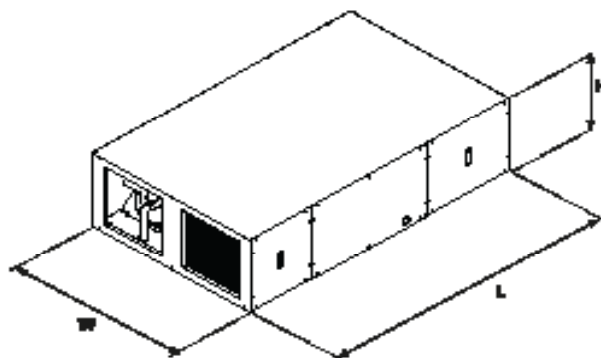
(4) external leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

(5) Performances referring to clean filters

## Dimensions (mm)



030 - 100



140 - 400

RPLI			030	050	070	100	140	200	300	400
Height	(H)	mm	400	400	435	435	460	460	600	600
Width	(W)	mm	800	800	945	945	1100	1600	1700	2050
Length	(L)	mm	1300	1300	1600	1600	1800	1800	2350	2350
Weight		kg	91	107	153	153	157	238	379	456



## RPF

High performance heat recovery unit  
with cross-current recuperator.  
Nominal air flow from 790 to 4250 m<sup>3</sup>/h.



- **CROSS-CURRENT HEAT RECOVERY WITH PERFORMANCES SUPERIOR THAN 90%**
- **PLUG FANS COUPLED WITH EC BRUSHLESS MOTORS FOR ENERGY COSTS REDUCTION**

### Features

- Heat recovery units **RPF** have been designed for commercial applications and permits to combine an excellent ambient comfort with a sure energy saving.  
Always more in the modern plant design there is the demand to have a Controlled Mechanical Ventilation, which implies the expulsion of conditioned air, determining a higher consumption of energy and consequently an increase of prices.

The units **RPF thanks to the cross-current heat recuperator** permit to save more than 90% of energy which otherwise would be lost with expelled stuffy air.

**RPF** could be integrated with traditional systems realized with fan coils, chillers, and could work both in winter and in summer. This series is indicated for both horizontal and vertical installation.

#### Configurations

- **RPF\_O** Horizontal right supply (not available for size 42)
- **RPF\_P** Horizontal left supply (not available for size 42)
- **RPF\_V** Vertical right supply
- **RPF\_Z** Vertical left supply

Each of the different configurations could be further customized thanks to the choice of the accessories (**please refer to the technical documentation**)

- **The structure is formed by aluminium profiles with thermic cut**, connected by nylon angles charged with glassfibre. The sealing panels, of 50 mm thickness, are of the sandwich type in pre-painted plate RAL 9002 (external) and galvanized sheet iron (internal) insulated with polyurethane with

density 45 kg/m<sup>3</sup>. The expander of the polyurethane foam is based on water permitting to reach GWP=0 (Global Warming Potential). The casing is in fire reaction class M1 according to the French regulation NF P 92-512:1986. Removable panels are also foreseen to access to internal components, equipped with safety locks, condensate drain and internal modulating rolling shutter of motorized and controlled bypass for free-cooling.

- Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC). The impellers are oriented in such a way to grant an optimal air flow which goes through the internal components, with the minimum noise.
- Air filtration with a filter with G4 efficiency (according to EN779) with low pressure drops on extracted air flow and a compact filter and with efficiency F7 (according to EN779) having a large filtrating surface made of glass microfibre paper, inserted in the intake flow. The two typologies of filters are positioned upstream of the components to be protected, in order to grant low pressure drops, having a large surface available. The filtrating cells are fixed on a proper bearing frame to avoid any by-pass of non-treated air. Their extractability is guaranteed from a proper side opening (standard), superior or inferior (optional) [with reference to the horizontal version].
- Static high efficiency cross-current heat recovery unit with high efficiency and aluminium plate. The heat recovery unit guarantees the non-contamination of air flows, because the plates are properly sealed.

Its performance is not inferior to 90% (EN308) in function to the external conditions: Air of intake: -10°C/90% - Air of extract 20°C/50% and equal capacities between supply and extract. It is included also the function of automatic defrosting made easy by the internal modulating rolling shutter and from the possible modulation with intake flow.

- Regulation  
Constituted by power electric panel and programmable controller with integrated graphic display. Everything is internally fitted in the unit in an accessible position.  
The function of regulation are:
  1. Ventilation control (manual control of the standard fans speed);
  2. Thermo-regulation completed with all electric/electronic components (modality of regulation in standard extract);
  3. Integrated logics of energy savings: modulating free-cooling / free-heating, anti-freeze, night cooling, air quality control, dynamic set point, speed economy of ventilation, ranges of time;
  4. Complete interfaceability with BMS systems.

The elimination from closed rooms of the polluting elements, produced mainly from people and the simultaneous external air input, are at the basis of the concept of controlled mechanical ventilation (VMC) of the internal rooms.

The purpose of ventilation is to raise the standard of internal air quality with consequent positive effects for health and productivity of the occupiers. The change of air has positive effects also on the good maintenance of the building. For the building to be requalified, the Controlled Mechanical Ventilation is almost a mandatory choice in order to reach high energy standards, which are imposed by the current legislation.

- **VERY HIGH VENTILATION EFFICIENCY**

Since the ventilation represents one of the major factor of energy consumption, particular attention has been given to the study and to the creation of the ventilation system.

Fans of the plug-fan type with EC brushless motors have been used both in supply and in extraction; they permit high performances and reduced consumptions. Furthermore, compared with the traditional centrifugal fans, they don't have belts or pulleys with consequent easiness of capacity regulation, compactness, versatility, and an easy maintenance.

A particular adaptative logic permits to adjust the effective air capacity required from the system with more consequent advantages in terms of reduction of consumptions.

- **MAXIMUM EFFICIENCIES**

In this context RPF is proposed as the high efficient and performing solution for double flow ventilation systems with heat recovery. The key-concept on which is based the RPF proposal are:

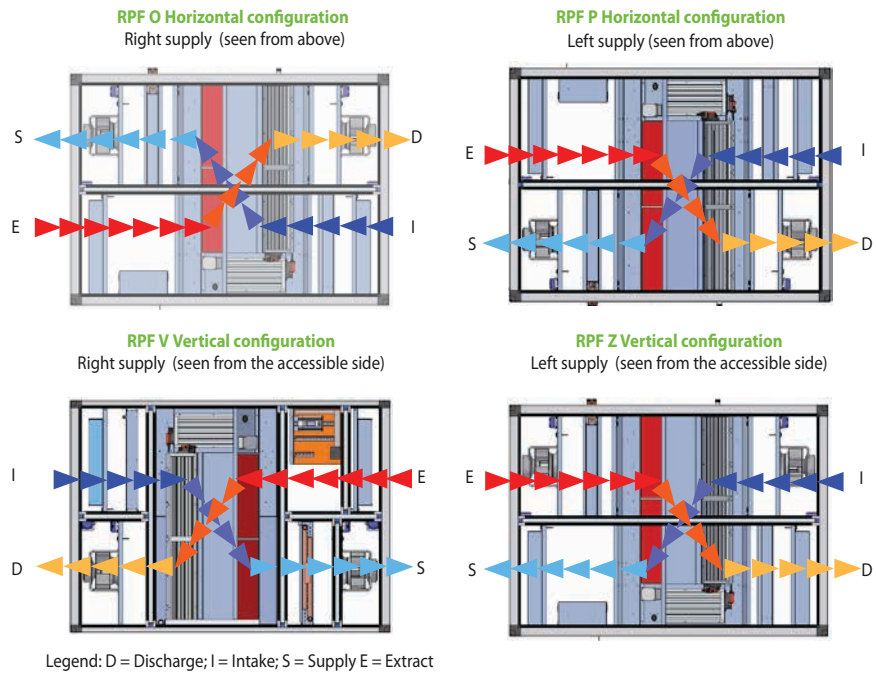
- Very high efficiency heat recovery attested by EUROVENT certification and maintenance of the complete separation of intake and discharge air flow;
- Reduced ventilation energy consumptions, thanks to a detailed dimensioning of the components in order to have low total values of SFP (Specific Fan Power or rather energy consumption for m<sup>3</sup>/h of total processed capacity);
- High efficiency filtration and low pressure drops;
- Advanced electronic management for the energy saving and of controlling of internal pollutants functions VOC (Volatile Organic Compounds);
- Compactness of dimensions and logic of installation "plug and play".

- **AIR QUALITY IN ROOM**

Particular attention has been given naturally also to the quality of air in the room, standard assigned to filters with efficiency G4 on extracted air flow and on compact filter with efficiency F7 included on intake air flow.

Naturally all these technological advantages are controlled by a thermoregulation of last generation, able to manage the different working procedures; assuring the maximum energy saving in every usage condition by using a proper software.

### Basic configuration



Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC)



Static cross-current high efficiency recuperator with aluminium plates.

RPF		008	010	013	020	031	042
	V/ph/Hz	230V/~N/50	230V/~N/50	230V/~N/50	230V/~N/50	400V/3/50	400V/3/50
<b>Type of ventilation units</b>	*	UVNR (Unit ventilation not residential)					
<b>Recovery it</b>							
<b>Type heat recovery system</b>	* type/n°	cross-current heat recovery / 1					
Heating efficiency dry	*(1) %	80	79,9	80	79,9	79,9	83,8
Total recovered heating capacity (EN308)	(2) kW	4,2	5,4	7	10,7	16,6	22,8
Heating efficiency for renovation	(3) %	90	90	90	90	90	90
Total recovered heating capacity	(3) kW	7,2	9,1	11,8	18,1	28,1	38,5
Air flow rate supply/extract	* m³/s	0,22	0,28	0,36	0,56	0,86	1,18
	m³/h	790	1000	1300	2000	3100	4250
Air flow rate min.	m³/h	200	200	400	1000	1000	1300
Air flow rate max.	m³/h	980	1260	1530	2350	3700	4600
<b>Fans</b>							
<b>Driving</b>	*	Analog signal of EC fan					
Fans	type/n°	EC/2	EC/2	EC/2	EC/2	EC/2	EC/2
Supplied electrical power consumption	kW	0,16	0,24	0,33	0,6	0,79	1,3
Recovered electrical power consumption	kW	0,15	0,23	0,33	0,56	0,76	1,2
Total input electric power	* kW	0,31	0,47	0,66	1,16	1,55	2,5
Total input electric power	(4) kW	0,6	1,24	1,26	1,66	5,26	5,26
Corrente assorbita massima totale	(4) A	4,6	7,5	7,5	9,3	11,1	11,1
SFP int	* W/(m³/s)	625	667	743	1142	919	1211
SFP int_lim 2018	W/(m³/s)	1127	1118	1109	1227	1031	1253
Filters face velocity	* m/s	1,8	2	1,8	2,2	2,2	2,1
Nominal external pressure Δp	Pa	200	250	250	250	250	225
Useful static supply pressure	Pa	191	218	169	134	215	143
Useful static recovery pressure	Pa	196	233	175	152	255	184
Supplied internal pressure drop Δp	* Pa	174	198	219	319	304	372
Recovered internal pressure drop Δp	* Pa	176	189	227	355	293	379
Fans static efficiency	*(5) %	61,7	57,2	57,2	61,8	66,9	62,7
Internal leakage	(6)	0,3	0,3	0,3	0,1	0,3	0,2
External leakage	(6)	<3%					
<b>Filters</b>							
Expelled air filter energy class		B	B	B	B	B	B
External air filter energy class		On request					

**\* Information in compliance with Annex V of regulation EU no. 1253/2014**

SFP Specific Fan Power

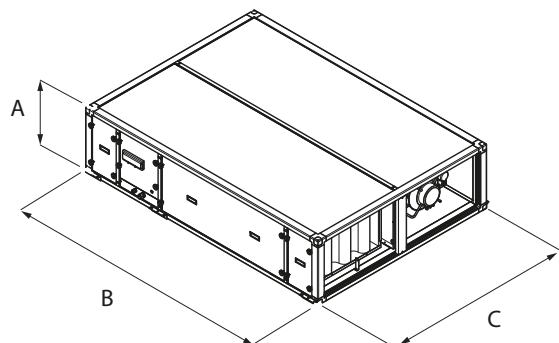
(1) relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K, excluding the heating gain generated by the fan motors and the internal leakage.

(2) Expelled air: Tbs=25°C; Tbu<14°C. Fresh air: Tbs=5°C

(3) according to regulation EU 327/2011;

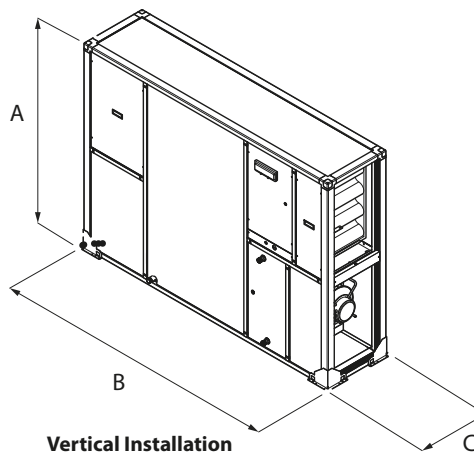
(4) external leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

RPF 008÷031



Horizontal Installation

RPF 008÷042



Vertical Installation

Mod. RPF (Horizontal)			008	010	013	020	031	042
Height	(mm)	A	450	450	524	560	700	-
Width	(mm)	B	1915	1915	2174	2334	2654	-
Depth	(mm)	C	1054	1258	1374	1694	1948	-
Weight when empty	(kg)	(2)	194	220	264	328	452	-

Mod. RPF (Vertical)			008	010	013	020	031	042
Height	(mm)	A	1054	1258	1374	1694	1948	1550
Width	(mm)	B	1915	1915	2174	2334	2654	2974
Depth	(mm)	C	450	450	524	560	700	1130
Weight when empty	(kg)	(2)	194	220	264	328	452	585

(2) Standard configuration of unit with accessories

**Note:** For more information, refer to the selection program Magellano or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## URX CF

Heat recovery unit  
with refrigerant circuit.  
Air flow from 750 to 3,300 m<sup>3</sup>/h.



The URX\_CF series is the mono-bloc solution designed for the installation requirements typical for public spaces like bars, restaurants, offices, meeting rooms.

The URX\_CF units combine in one mono-bloc unit, besides the fan, filter, and heat recovery sections, a heat pump refrigerant circuit with scroll compressors of high output and low noise.

The supply air is heated or cooled, based on the season, through the heat pump refrigerant circuit located within the unit and charged with refrigerant R410A. All this allows to have a complete unit, with the automatic operation in each season and capable of combining the required space ventilation requirements with efficient heat recovery.

The careful design of the machine combines very compact dimensions, which permit easy installation in false ceilings, with an excellent accessibility for maintaining all the internal components.

### Characteristics

#### VERSIONS

- Standard horizontal configuration
- 5 sizes complete with temperature controller and ready for installation.

#### PANELS:

- Self-supporting sandwich panel 20 mm thick in galvanised steel for internal and external surfaces with injected polyurethane insulation (density 40 kg/m<sup>3</sup>).

#### HEAT RECOVERY:

- Cross flow plate heat exchanger in aluminium with outputs over 50% in winter conditions.

#### FILTERS:

- Class G3, 80% gravimetric efficiency, according to EN 779, thickness 48 mm, located before the heat recovery both in the supply and return air flow.

#### CENTRIFUGAL FANS:

- Double inlet forward curved blades with direct drive motor. Single phase 230V-50Hz single speed

motor. The air flow is controlled, within +/- 15% of the nominal, through an electronic speed controller supplied as standard.

#### REFRIGERANT CIRCUIT:

- Heat pump complete with high efficiency low noise scroll compressors, 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, liquid separator, double thermostatic expansion valve, liquid sight glass (only for models 150, 210, 330), filter drier, high/low pressure pressostats.

#### ELECTRICAL PANEL:

- The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions. Included are: NTC return air temperature sensor, external air temperature sensor, dampers and actuators in the free-cooling version, pressure switch in the supply air filter.

Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

#### CONDENSATE DRAIN TRAY:

- Condensate drain tray in aluminium.

#### ACCESSIBILITY:

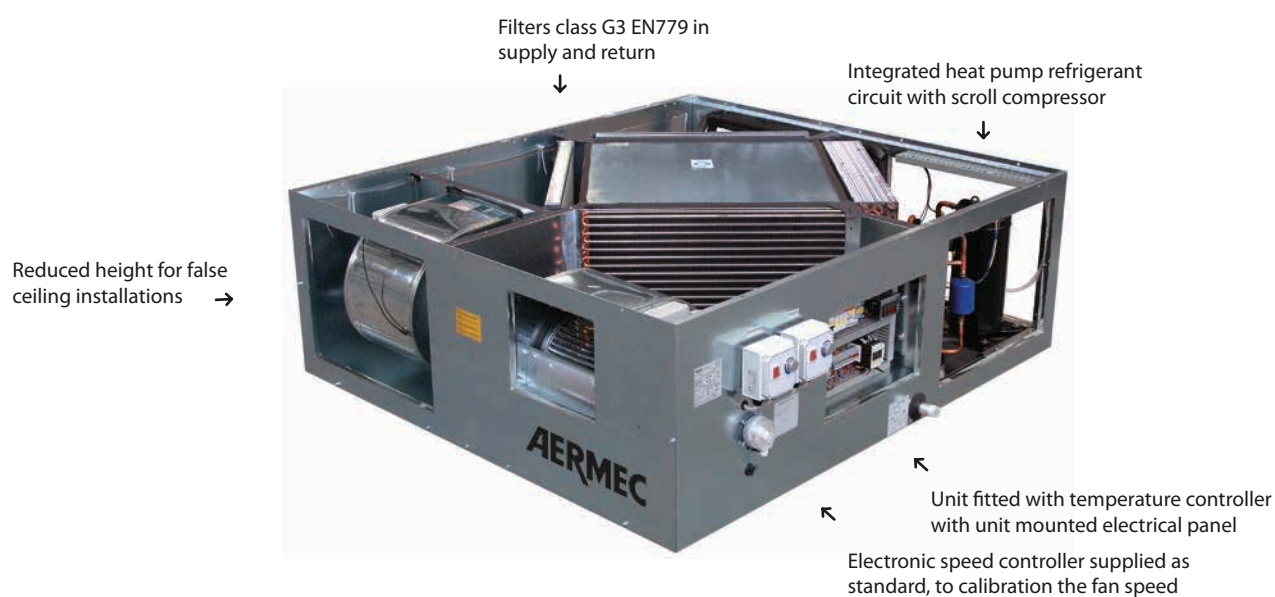
- From below for the heat recovery, the filters, the condensate drain tray and the fans.



## Accessories

- **MBC** casing with 2 row hot water coil to install on the supply air. Includes the three way valve and on-off actuator.
- **FCE** free-cooling complete with controls to be added to the existing. Free-cooling operation only works in the summer mode, if the external air temperature is at least 10K lower than the internal air temperature and if the compressor safeties permit it.
- **FGC** circular flanges. Each accessory consists of a flange to be connected to each unit's rectangular connection.
- **G4F** filter efficiency G4
- **MBX** casing with single stage electrical heater with shrouded finned elements, with double safety thermostat of manual and automatic reset type, to install on the supply air.
- **SUF** silencer splitter module, in appropriate casing. The accessory consists of two modules: one for the supply and one for the return.
- **RS485** board RS485

URX_CF	07	10	15	21	33
RS485	•	•	•	•	•
FCE	07	10	15	21	33
FGC	07	10	15	21	-
G4F	07	10	15	21	33
MBC	07	10	15	21	33
MBX	07	10	15	21	33
SUF	07	10	15	21	33



## Technical data

Mod. URX_CF		07	10	15	21	33
Air flow nominal supply and extract	m <sup>3</sup> /h	750	1000	1500	2100	3300
Air flow minimum		640	850	1275	1785	2800
Available supply static pressure (max)	(1) Pa	298	250	250	166	280
Available extract static pressure (max)	(1) Pa	248	218	233	163	273
Heating capacity total (heat recovery + refrigerant circuit)	kW	8,8	10,8	15,8	22,8	33,3
Total cooling capacity (heat recovery + refrigerant circuit)	kW	6,1	7,3	10,2	15,0	23,0
Heating capacity available	kW	2,4	2,3	3,0	4,8	5,2
Cooling capacity available	kW	1,4	1,7	2,2	3,4	5,1
Efficiency heat recovery	%	46,2	51,2	53,2	53,6	53,6
<b>Fans</b>						
Total fans nominal power input	n°	0,92	0,92	0,92	0,92	1,5
Total fans maximum current input	kW	4,20	4,20	4,20	4,20	6,80
N°	A	2	2	2	2	2
<b>Compressors</b>						
Gas		R410A	R410A	R410A	R410A	R410A
Compressor power input winter condition	kW	1,3	1,3	1,8	2,5	3,0
Compressor power input summer condition	kW	1,8	2,1	2,3	3,5	4,4
Maximum compressor current input	A	8,2	12,5	7	11,1	19,7
Total power input winter condition	kW	2,0	2,0	3,3	4	5,5
Total power input summer condition	kW	2,6	2,8	3,8	5	6,9
Sound pressure level at 1 m	db(A)	53	55	57	59	62
Power supply		230V/1/50Hz	230V/1/50Hz	400V/3N/50Hz	400V/3N/50Hz	400V/3N/50Hz
<b>MBC - Hot water coil (accessory)</b>						
Number of rows	n°	2	2	2	2	2
Air side pressure drop (nominal air flow)	Pa	11	18	23	42	78
Heating capacity	(2) kW	5	6	8,7	10,3	16,8
Heating capacity	(3) kW	1,9	2,2	3,4	3,7	7,5
Water flow rate at nominal conditions	(2) l/h	442	523	763	902	1475
Water pressure drop (nominal conditions)	(2) kPa	16	22	9	12	31
Water flow rate at nominal conditions	(3) l/h	336	382	584	638	1306
Water pressure drop (nominal conditions)	(3) kPa	11	14	6	7	28
<b>MBX - Electric heating coil (accessory)</b>						
Power supply		400V/3/50Hz (separate power supply to the unit)				
Heating capacity	kW	3	4,5	6	9	12
Air side pressure drop (nominal air flow)	Pa	10	10	10	10	10
Number of stages	n°	1	1	1	1	1
Electric heater current input	A	4,6	6,8	9,1	13,7	18,2
<b>CONNECTION DIAMETERS</b>						
Drain pan condensate discharge diameter	in	1"	1"	1"	1"	1"
Water coil connection diameter	in	3/4"	3/4"	3/4"	3/4"	3/4"

### Heating

fresh air flow equal to the exhaust air flow; external air temperature (in) -5°C 80% r.h.; room air temperature 20°C, 50% r.h.

### Cooling

fresh air flow equal to the exhaust air flow; external air temperature (in) 34°C 50% r.h.; room air temperature 26°C, 50% r.h.

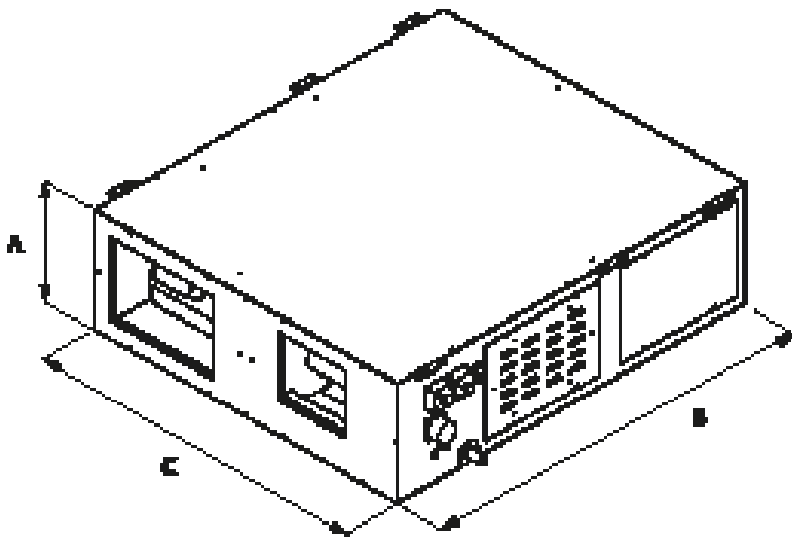
(1) Fan power supply 230V; nominal air flow rate without accessories

(2) Water temperature (in/out) 70/60°C; operating as in heating mode; with compressor operating

(3) Water temperature (in/out) 45/40°C; operating as in heating mode; with compressor operating

**Sound pressure:** at 1 m in free field with ducted vents





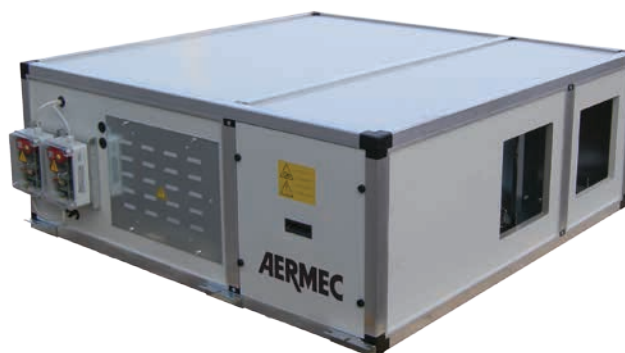
URX_CF			07	10	15	21	33
Height	A	mm	450	450	550	550	600
Width	B	mm	1300	1300	1500	1500	1600
Depth	C	mm	1500	1500	1800	1800	1800
Weight		kg	205	218	272	298	328

# URHE\_CF

High-efficiency heat recovery unit with cooling circuit without an external unit. Air flow rates from 1,000 to 3,300 m<sup>3</sup>/h.

HFC  
Refrigerant  
R410A

TECHNOLOGY  
HIGH  
EFFICIENCY



## Features

The units from the URHE\_CF series represent a high-efficiency solution to satisfy the temperature and humidity comfort and ventilation requirements in air conditioning systems that serve public spaces and the commercial sector, such as offices, bars, restaurants, etc.

The URHE\_CF units are particularly efficient units in that they use a high yield cross flow plate heat exchanger of high capacity combined with a heat pump cooling circuit operating with refrigerant R410A.

The use of a high yield cross flow heat recovery unit permits a significant reduction in the operating time of the cooling circuit throughout the year, thereby reducing to the minimum the electrical energy consumption.

The small unit dimensions allow for easy installation even in suspended ceilings, allowing excellent accessibility for the maintenance of all the internal components.

The numerous accessories available on request, for example the high-efficiency compact filters, the hot water coil or the silencers, complete the functions of the unit, which is usually combined to an air conditioning system.

### VERSIONS

- 4 sizes available in horizontal configuration for ground or suspended ceiling installation.
- Unit complete with temperature controller and ready for installation.

### STRUCTURE AND PANELS:

- Structure in aluminium profiles with glass fibre reinforced nylon corner pieces.
- Sandwich panel 25 mm thick with galvanised steel for the internal surface, prepainted for the external surface with injected polyurethane insulation (density 42 kg/m<sup>3</sup>).

### HEAT RECOVERY:

- Cross flow plate heat exchanger in aluminium optimised to ensure high outputs.

### PLEATED FILTERS:

- Class G4, 80% gravimetric efficiency according to EN 779, thickness 48 mm, located before the recovery unit both in the supply and return air flow.

### CENTRIFUGAL FANS:

- Forward curved impellers with directly coupled high static pressure motor. The air flow rate is maintained constant by the use of an electronic controller.

### COOLING CIRCUIT:

- Heat pump with refrigerant R410A, complete with high-efficiency low noise rotary or scroll compressors (depending on size), 4 way cycle reversing valve, evaporator coil, condenser coil, liquid receiver, thermostatic valve, liquid sight glass, dehydrator filter, high pressure manostat, low pressure manostat, safety valve, bypass

valve (for the smaller sizes).

### ELECTRICAL PANEL:

- The unit is provided with an electrical panel complete with power and control cross-section (including the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the cooling circuit functions. Included are: NTC return air temperature sensor, external air temperature sensor, dampers and actuators in the free-cooling version, manostat on the flow filter. Supplied loose is a remote control terminal for automatic control of the unit.

### ENVIRONMENTALLY FRIENDLY:

- Through the applied technology and the use of ozone friendly refrigerant R410A, the URHE\_CF series is environmentally friendly. R410A is a refrigerant with high thermodynamic efficiency and this, together with the use of scroll compressors, allows for reduced CO<sub>2</sub> emissions.

## Accessories

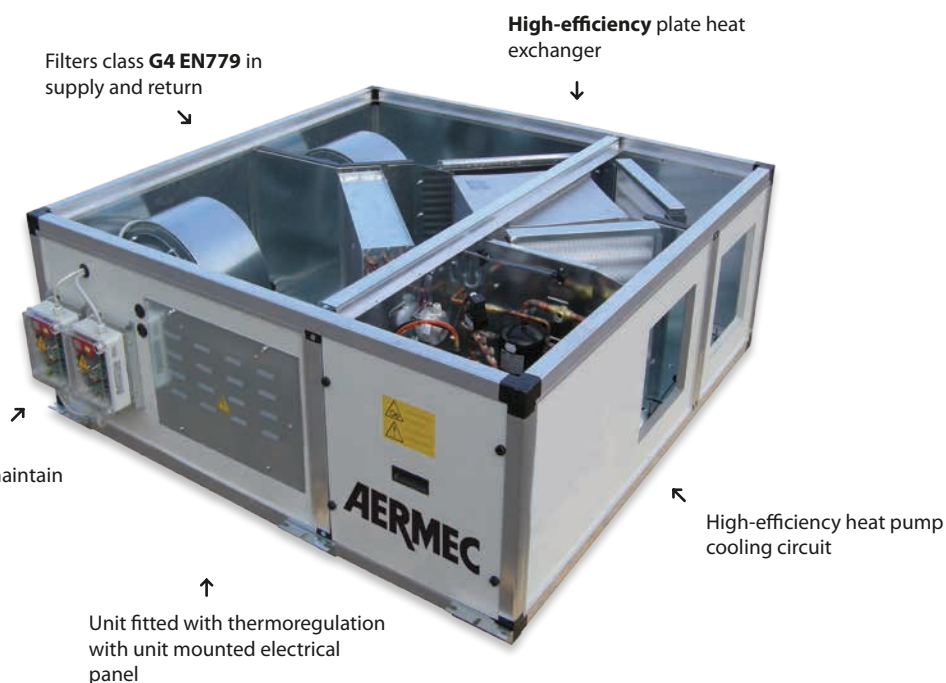
- **MBCH** hot water coil module
- **MBCX** electric coil module
- **FCT** high-efficiency compact filters F7
- **BIT** base for floor mounting
- **BIM** base for floor mounting for additional modules
- **TPE** roof for external installation
- **TPM** roof for external installation of additional modules
- **FCH** free-cooling kit
- **RS485** board RS485
- **MSS** n° 1 silencer splitter module
- **TPMSS** roof for silencer splitter module
- **FGE** circular flanges

URHE_CF	10	15	25	33
<b>MBCH</b>	MBCH1	MBCH1	MBCH1	MBCH2
<b>MBCX</b>	MBCX1	MBCX2	MBCX3	MBCX4
<b>FCT</b>	FCT1	FCT1	FCT2	FCT3
<b>BIT</b>	BIT1	BIT1	BIT2	BIT3
<b>BIM</b>	BIM1	BIM1	BIM1	BIM1
<b>TPE</b>	TPE1	TPE1	TPE2	TPE3
<b>TPM</b>	TPM1	TPM1	TPM1	TPM2
<b>FCH</b>	FCH1	FCH1	FCH2	FCH2
<b>RS485</b>	RS485	RS485	RS485	RS485
<b>MSS</b>	MSS1	MSS1	MSS2	MSS2
<b>TPMSS</b>	TPMSS1	TPMSS1	TPMSS1	TPMSS2
<b>FGE</b>	FGE1	FGE1	FGE1	FGE1



**Remote panel**  
(standard)

**Standard inverter** for fans to maintain constant air flow rate



## Technical data

<b>URHE_CF</b>			<b>10</b>	<b>15</b>	<b>25</b>	<b>33</b>
Maximum air flow and recovery flow rate			1000	1500	2500	3300
Air flow minimum			800	1100	2000	2500
Available flow and return static pressure	(1)	(Pa)	320	245	140	220
Heating capacity recovered	(2)	(kW)	7	10	15.3	19.6
Cooling capacity recovered	(3)	(kW)	2.2	3.2	4.5	5.8
Total heating capacity (recovery unit + compressor)	(2)	(kW)	10.9	14.2	24.8	33.1
Total cooling capacity (recovery unit + compressor)	(3)	(kW)	6.6	8.7	13.8	19.8
Available heating capacity	(2)	(kW)	2.8	2.9	3.9	7
Available cooling capacity	(3)	(kW)	1.8	3.1	3.3	5.4
<b>RECOVERY UNIT</b>						
Efficiency in winter condition		(%)	82	80	73	71
Efficiency in summer condition		(%)	82	80	68	65
<b>FANS</b>						
Number of fans			2	2	2	2
1 fan maximum input power		(kW)	0.42	0.46	1.1	1.1
1 fan maximum input current		(A)	3.10	3.10	5.3	5.3
Heating total input power	(2)	kW	2.2	2.4	4.2	4.9
Cooling total input power	(3)	kW	2.6	2.9	5.1	6.5
Protection rating		IP	55	55	55	55
Sound power level		dB(A)	66	69	72	75
<b>FILTERS (standard)</b>						
EN779 Classification			G4	G4	G4	G4
Gravimetric efficiency		(%)	90	90	90	90
EN779 Classification (accessory filters)			F7	F7	F7	F7
Additional pressure drop for filters F7 (accessory)		Δ (Pa)	35	59	58	63
<b>COOLING CIRCUIT (COMPRESSOR)</b>						
Refrigerant			R410A	R410A	R410A	R410A
Compressor maximum current input		(A)	10	11	7	10.3
<b>CONDENSATE DRAIN TRAY</b>						
Condensate drain tray discharge diameter			(in)	1"	1"	1"
<b>MBCH - HOT WATER COIL (accessory)</b>						
Rows			(n)	2	2	2
Air side pressure drop (nominal flow rate)			(Pa)	7	18	37
Heating capacity	(4)	(kW)	7.7	10.3	15.6	19.7
Heating capacity	(5)	(kW)	2.6	4	6.5	7.6
Water flow rate at nominal conditions	(4)	(l/h)	673	906	1363	1725
Water side pressure drop (nominal conditions)	(4)	(kPa)	11	8	18	32
Water flow rate at nominal conditions	(5)	(l/h)	446	700	1118	1311
Water side pressure drop (nominal conditions)	(5)	(kPa)	3	6	14	22
Water coil manifold diameter		(in)	3/4"	3/4"	3/4"	3/4"
<b>MBCX - Electric heating coil (accessory)</b>						
Power supply			400V/3/50Hz (separate power supply from the unit)			
Heating capacity		(kW)	5	7.5	12.5	16.5
Air side pressure drops (nominal flow rate)		(Pa)	10	10	10	10
Stages		(n)	1	1	1	1
Electric coil current input		(A)	7.6	11.4	19	25.1

(1) Fan power supply: 230V; nominal air flow rate; without accessories;

(2) Fresh air flow rate equal to exhaust air flow rate: incoming external air temperature -5°C, 80% UR; Room temperature 20°C, 50% UR

(3) Performance referring to: fresh air flow rate equal to exhaust air flow rate; incoming external air temperature 34°C, 50% UR; room temperature 26°C, 50% UR.

(4) Performance referred to: inlet/outlet water temperature 70/60°C; at conditions 2) with compressor operating

(5) Performance referred to: inlet/outlet water temperature 45/40°C at conditions 2) with compressor operating

Sound power level of the flow fan not ducted with useful static pressure equivalent to 0 Pa.

(1) Fan power supply: 230V; nominal air flow rate; without accessories;

### Cooling

(2) Operating conditions: return air 26°C 50%, external air 34°C 50%;

### Heating

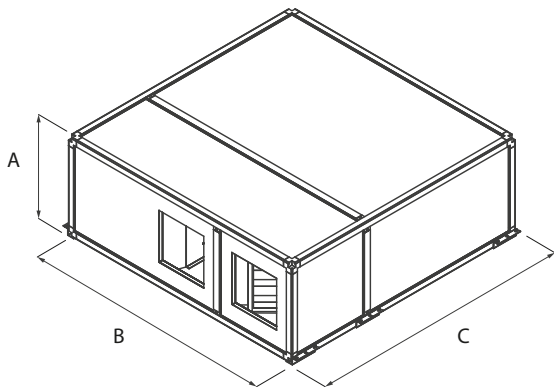
(3) Operating conditions: return air 20°C 50%, external air -5°C 80%;

(4) This value offers an indication of the capacity produced by the unit net of the capacity used to bring the external air conditions to neutral values (specifically, 20°C with 50% UR in winter and 26°C with 50% UR in summer)

(5) At 1 m distance in free field with ducted connections.

(6) Inlet/outlet water temperature 70/60°C. Compressor operating. Operating conditions: return air 20°C 50%, external air -5°C 80%;

(7) Inlet/outlet water temperature 45/40°C. Compressor operating. Operating conditions: return air 20°C 50%, external air -5°C 80%;



URHE_CF			10	15	25	33
Height	A	(mm)	580	580	580	580
Width	B	(mm)	1640	1640	1640	1970
Depth	C	(mm)	1500	1500	1990	2310
Weight		(kg)	300	310	373	410

## ERSR

High-efficiency heat recovery  
high-efficiency with rotary recovery unit.  
Air flow rates from 1,000 to 30,000 m<sup>3</sup>/h.



- **MECHANICALLY CONTROLLED VENTILATION**
- **ROTARY HEAT RECOVERY UNIT**
- **RECOVERY OF UP TO 80% OF THE ENERGY OF THE EXPELLED AIR**
- **AIR PURIFICATION**

### Features

The **ERSR** heat recovery units for indoor and outdoor installation are designed for commercial applications and are able to combine maximum environmental comfort with definite energy saving.

With modern systems, there is always the need to create forced ventilation, which, however, also involves expelling air-conditioned air, which thus leads to higher energy consumption. But ERSR units are equipped with a rotary heat recovery unit (upon request, also hygroscopic rotary) that enables you to save more than 80% of the energy that would otherwise be lost with the expelled stale air.

These units can be integrated with fan coils and chillers, and can operate both in winter and summer.

#### Versions

**ERSR\_T** with a sensitive rotary recovery unit can be installed vertically only with sizes (**ERSR07÷09TV**)

**ERSR\_H** with a hygroscopic rotary recovery unit can be installed vertically only with sizes (**ERSR07÷09HV**)

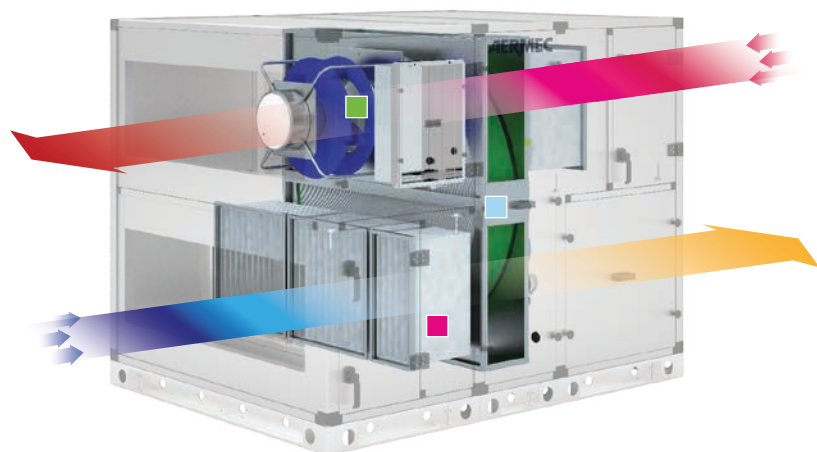
- Rotary heat recovery unit (with the option in hygroscopic material), high-efficiency and low pressure drops.
- Soft air bag F7 filters (flow and recovery) equipped with a standard differential pressure switch, which can be extracted from either side facilitate their periodic cleaning.
- Fans (intake and flow), Plug fan with back curved blades with a directly coupled, electronically controlled motor for sizes 07-17 and with an inverter for sizes 21-24.

- Support frame and sandwich panels, 50 mm thick, in galvanised sheet steel for internal surfaces and pre-painted externally, and with mineral wool insulation (density 40 kg/m<sup>3</sup>). Upon request, there are two different types of panelling.
- Base in galvanised sheet steel continuous profiles. Sizes 07 to 09 are monoblocs whilst the other sizes are divided into sections. The unit can be inspected from both sides.
- The unit is equipped with a power electric control board on the machine and adjustment purposely designed to reduce energy consumption. Equipped with a communication serial port on RS485 with MODBUS Master/Slave protocol

### Accessories

- **CAP** Intake rainproof cover
- **BDL** Flow rainproof cover
- **FRR** Rectangular flange
- **GAR** rectangular anti-vibration joint
- **HSR** Fresh air intake damper with servocontrol
- **RSR** Circulation damper module
- **HG4** Flat filters G4
- **TDP** roof protection for basic unit in the case of outdoor installation
- **VRC** condensate drip tray
- **VVR** Variable speed recovery unit
- **QP** Air quality probe (VOC)
- **KDP** Dehumidification and post-heating management kit
- **RBC** 3-way valve hot water coil module
- **RBF** 3-way valve cold water coil module
- **RBE** electric coil module
- **RBP** 3-way valve cold water and post-heating coil module
- **MSS** silencer baffles module

## Features



- Air expelled
- Air recovery from the room
- Outdoor fresh air
- Air introduced into the room

### Quality of the air

Nowadays, the quality of air inside rooms is fundamental. The mechanically controlled ventilation system is not only indispensable from an energetic point of view, but also for the comfort of the rooms.

Harmful elements and smells in the air are eliminated by the efficient filtration system with bag filters (F7), which are easily extracted and regenerated.

### High-efficiency air circulation thanks to plug-fans with electronically controlled motors or inverters, depending on the sizes

- It eliminates inefficiency, wear and maintenance of traditional fans with belt and pulley transmission
- They guarantee energy savings of up to 30% compared to traditional fans. The control lets you calibrate the fan's speed according to your requirements, thus optimising seasonal efficiency

### High-efficiency recovery unit (80% of the energy of the expelled air)

Air heat recovery both in summer and winter, thanks to the rotary recovery unit (hygroscopic version also available). Air introduced into the room is always optimised, thanks to the heat exchange between the air recovery and outdoor fresh air.

### State of the art electronic control

Naturally, all these technological advantages are controlled by state of the art heat regulation, thus ensuring maximum energy savings in every condition of use.

## Accessories compatibility

ERSR	07	09	12	15	17	21	24
<b>UNIT ACCESSORIES</b>							
CAP	CAP07	CAP09	CAP12	CAP15	CAP17	CAP21	CAP24
BDL	BDL07	BDL09	BDL12	BDL15	BDL17	BDL21	BDL24
FRR	FRR09	FRR09	FRR12	FRR15	FRR17	FRR21	FRR24
GAR	GAR07	GAR09	GAR12	GAR15	GAR17	GAR21	GAR24
HSR	HSR07	HSR09	HSR12	HSR15	HSR17	HSR21	HSR24
RSR	-	-	HSR12	RSR15	RSR17	RSR21	RSR24
HG4	HG407	HG409	HG412	HG415	HG417	HG421	HG424
TDP	TDP07	TDP09	TDP12	TDP15	TDP17	TDP21	TDP24
VRC	VRC07	VRC09	VRC12	VRC15	VRC17	VRC21	VRC24
VVR	VVR07	VVR09	VVR12	VVR15	VVR17	VVR21	VVR24
QP	•	•	•	•	•	•	•
KDP	•	•	•	•	•	•	•
<b>MODULE ACCESSORIES</b>							
RBC	RBC07	RBC09	RBC12	RBC15	RBC17	RBC21	RBC24
RBF	RBF07	RBF09	RBF12	RBF15	RBF17	RBF21	RBF24
RBE	RBE07	RBE09	RBE12	RBE15	RBE17	RBE21	RBE24
RBP	RBP07	RBP09	RBP12	RBP15	RBP17	RBP21	RBP24
MSS	MSS07	MSS09	MSS12	MSS15	MSS17	MSS21	MSS24
<b>MODULE ACCESSORIES WITH ROOF (for outdoor installations)</b>							
RBCT	RBC07T	RBC09T	RBC12T	RBC15T	RBC17T	RBC21T	RBC24T
RBFT	RBF07T	RBF09T	RBF12T	RBF15T	RBF17T	RBF21T	RBF24T
RBET	RBE07T	RBE09T	RBE12T	RBE15T	RBE17T	RBE21T	RBE24T
RBPT	RBP07T	RBP09T	RBP12T	RBP15T	RBP17T	RBP21T	RBP24T
MSST	MSS07T	MSS09T	MSS12T	MSS15T	MSS17T	MSS21T	MSS24T



## Technical data

Mod. ERSR		07T	09T	12T	15T	17T	21T	24T
Nominal air flow and recovery flow rate	m³/h	1.100	1.950	3.700	5.950	7.800	12.200	16.100
Maximum air flow and recovery static pressure available	Pa	420	660	1.100	1.120	1.040	1.440	1.530
Total nominal input power	(1) kW	0,33	0,48	1,06	1,69	2,13	3,49	3,85
Maximum air flow and recovery flow rate	m³/h	2.000	4.370	5.880	10.650	14.800	24.750	31.350
Total maximum input power	kW	0,84	2,04	6,09	8,78	10,18	22,37	30,37
Total heating capacity recovered	kW	10,7	19	36	57,9	75,9	118	156
Recovered sens. heating capacity	kW	7,4	13,1	24,9	40,1	52,5	82,1	108
Winter recovery unit efficiency	%	80	80	80	80	80	80	80
Total recovered cooling capacity	kW	2,8	4,9	9,3	14,9	19,5	30,5	40,3
Recovered sens. cooling capacity	kW	2,7	4,7	9	14,4	18,9	29,6	39
Summer recovery unit efficiency	%	80	80	80	80	80	80	80
Total number of fans	n°	2	2	2	2	2	4	4
Sound power level	dB(A)	65,6	67	75,3	76,7	78	78	79
Unit power supply	V/h/Hz	400V/3N/50Hz						
RBC Hot water coil								
Heating capacity	(2) kW	9,5	16,9	27,4	46,7	60,1	95,8	130,4
Water flow rate	(2) m³/h	0,8	1,4	2,3	4	5,2	8,4	11,3
Water side pressure drop	(2) kPa	9	8	8	7	11	16	20
RBF Cold water coil								
Total cooling capacity	(3) kW	10,5	19,5	34,7	59,8	80	127,4	171,3
Sensitive cooling capacity	(3) kW	4,1	7,6	13,9	23,9	32	51	68,5
Water flow rate	(3) m³/h	1,6	2,9	6	10,3	13,7	21,9	29,5
Water side pressure drop	(3) kPa	15	8	7	23	33	34	3,2

**For the performance of the H version, contact the head office.**

### Heating

Fresh air flow rate equal to the air expulsion flow rate; Outdoor air temperature (in) -5°C 80% r.h.; Room temperature 20°C, 50% r.h.

### Cooling mode

Fresh air flow rate equal to the air expulsion flow rate; Outdoor air temperature (in) 35°C 50% r.h.; Room temperature 26°C, 50% r.h.

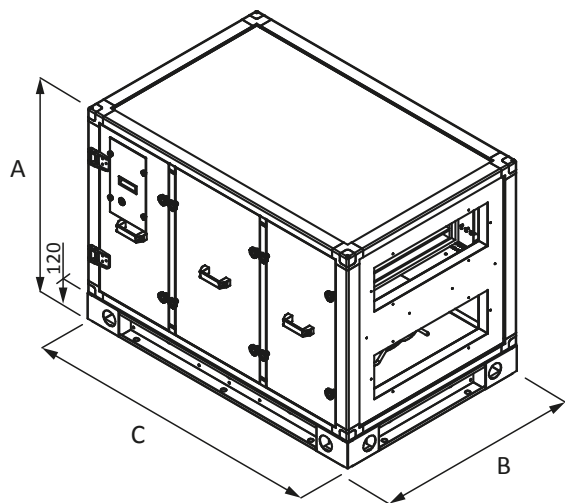
(1) With nominal air flow rates and useful pressure of 100Pa.

(2) Coil water inlet temperature 70°C; Coil inlet-outlet temperature difference 10°C; Coil air intake temperature 15°C; Water pressure drops not included with a 3-way valve (standard).

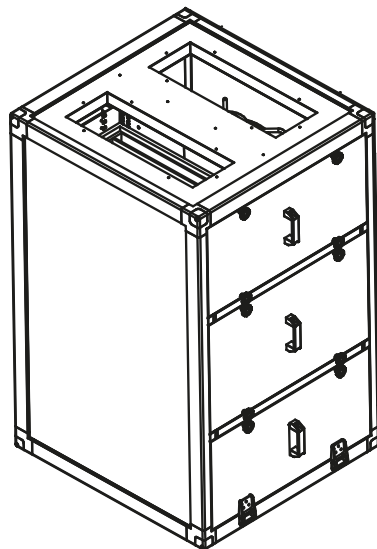
(3) Coil water inlet temperature 7°C; Coil inlet-outlet temperature difference 5°C; Coil air intake temperature 28°C, 75% RH; Water pressure drops not inclusive with a 3-way valve (standard).

Sound power level of the flow fan not ducted with useful static pressure equivalent to 0 Pa.

Horizontal installation



Vertical installation only for ERSR07 and 09



ERSR			07	09	12	15	17	21	24
Height	A	mm	965	1285	1445	1765	2085	2405	2725
Width	B	mm	895	1005	1375	1695	1855	2335	2665
Depth	C	mm	1375	1535	2045	2365	2365	3005	3005
Weight		kg	240	340	570	820	1010	1610	1980

# AIR HANDLING UNIT

The air handling units customized according to different needs of the installer to carry the best comfort and the best quality in civil commercial and industrial

AIR HENDLING UNITS		Air flow rate (m <sup>3</sup> /h)	Cool.Cap. (kW)	Heat. Cap. (kW)	Page
<b>Compact air Hendling units</b>					
<b>UFB20W</b>	Floating floor installation	140-290	0,8-1,5	0,9-2,9	164
<b>TUN</b>	Air flow rate 900÷4000 m <sup>3</sup> /h	900-4000	4,7-29,4	11,2-51,1	166
<b>TS</b>	Air flow rate 930÷4200 m <sup>3</sup> /h	930-4200	4,8-24,8	9,8-52,0	170
<b>TDA</b>	Air flow rate 800÷3500 m <sup>3</sup> /h	800-3500	4,9-22,3	2,5-45,4	172
<b>TA</b>	Air flow rate 900÷5000 m <sup>3</sup> /h	900-5000	4,7-39,6	2,2-87,5	174
<b>TN</b>	Air flow rate 3000÷23000 m <sup>3</sup> /h	3000-23000	10,7-155,1	14,7-334,1	178
<b>Modular air handling units</b>					
<b>NCD</b>	For hospitals	1134-79475	-	-	182
<b>SPL 025-130</b>	For wellness areas	2500-13000	-	-	186
<b>SPL 160-250</b>	For wellness areas	16000-25000	-	-	190
<b>ENERGY</b>	High energy efficiency version	3600-25000	-	-	194
<b>Packaged roof-top units</b>					
<b>RTX 01-08</b>	For medium crowding applications	-	12,3-50	12,5-51,0	198
<b>RTX 09-16</b>	For medium crowding applications	-	51,6-131,9	50-133,9	202
<b>RTX 17-23</b>	For medium crowding applications	-	152-305	153-311	206
<b>RTY 01-10</b>	For high crowding applications	-	30-134,8	29,1-142,2	210
<b>RTE 25-200</b>	For application in small to medium size rooms	-	11,1-55,9	11,5-55,7	214
<b>RTE 240-400</b>	For application in medium size rooms	-	82,5-152,1	77,5-148	218
<b>RTE 480-800</b>	For application in medium to large size rooms	-	155,7-274,4	158,1-278,8	222

## UFB\_\_W

Handling units with Brushless motor Inverter (EC)  
Floating floor installation



Typical installation

- **LOWER ELECTRICITY CONSUMPTION**
- **VERY QUIET OPERATION**
- **EASY MAINTENANCE**

### Features

Air handling terminal for installations in floating floor, also called floating or raised floor.

IS a unit consisting of a fan unit with **brushless inverter motor**, enclosed in a metal structure with mixing chamber equipped with motor-driven damper, filter and electronic card.

The use of these units is expected within a floating floor, often used in offices or equipment rooms for data centre and similar.

In these systems there is often an air handling unit that cools the environment by entering the treated air in the underfloor and the buster units combine to improve the distribution in the rooms and, depending on the version, perform localized after-treatment.

Using the two ambient air temperature sensors (return air) and the underfloor air temperature sensors, the electronic regulation through the positioning of the motor-driven damper, performs a mix to reach the temperature

setpoint set with the local user interface (type VMF-E4) or by the supervision system.

### Versions

**UFB20W** booster unit for UTA treated air distribution, the mix with the ambient air and any post-treatment using a water coil (heating, cooling, dehumidification) for the control of the room temperature.

- Unit is easy to install, as completely compatible with squares 600x600 mm used in these applications. Using the normal support systems of such floating floors allow to fully replace a square, obtaining a perfect joint, in line with the rest of the floor, with no "step".
- **Centrifugal fan with Brushless inverter** with continuous speed variation, 0-100%, which allows the exact adjustment to the requests of

the internal environment without temperature fluctuations. Also allows an electric savings and better acoustic comfort.

- Thickness contained (219 mm)
- **Water coil** for a possible post-heating for the temperature control in the room
- For a better air quality, the UFB are equipped with electro-statically pre-loaded filters.

### Accessories

- **DSC4UFB**: Condensate drainage device for use when natural run-off is not possible.
- **VCF\_U**: Kit consisting of motor-driven 3-way valve with insulating shell, insulated copper couplings and pipes. Versions with 230V~50Hz power supply
- **VMF-E4**: User interface from walls, allows the control of the functions through the capacitive

keyboard. **Obligatory to provide 1 for each Master unit**

For more information about the VMF system, refer to the specific documentation available on the site [www.aermec.com](http://www.aermec.com)

## Technical data

UFB_W		20			
Fan speed		H	M	L	
Heating performance					
2-pipe systems					
Heating capacity (70°C)	(1)	kW	2,96	2,53	1,91
Water flow rate	(1)	l/h	260	222	167
pressure drops	(1)	kPa	6	4	3
Heating capacity (50°C)	(2)	kW	1,77	1,51	1,13
Water flow rate	(2)	l/h	258	210	144
pressure drops	(2)	kPa	6	5	2
Cooling performance					
Total cooling capacity	(3)	kW	1,50	1,22	0,84
Sensible cooling capacity	(3)	kW	1,24	1,00	0,67
Water flow rate	(3)	l/h	258	210	144
pressure drops	(3)	kPa	6	5	3
Water content	l				
Fan					
Fan	type/no	centrifugal/1			
Air flow rate	m³/h	290	220	140	
Noise levels					
sound power level	(4)	dB(A)	50	43	31
Sound pressure level		dB(A)	42	35	23
Connections diameter					
Standard coil	Ø	1/2"			
Electrical characteristics					
Input power	W	12	8	5	
Input current	A		0.12		
Electrical wirings	%	90	68	36	
Power supply	V/ph/Hz	230V~50Hz			

**H** maximum speed; **M** average speed; **L** minimum speed

(1) Room air 20°C d.b.; Water (in/out) 70°C/60°C;

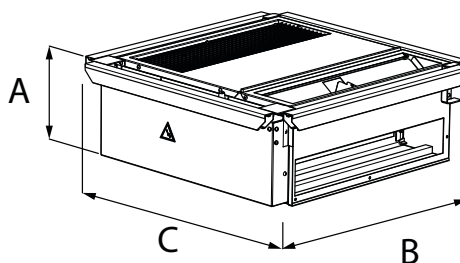
(2) Room air 20°C d.b.; Water (in) 50°C; Water flow rate as in cooling mode

(3) Room air 27°C d.b./19°C w.b.; Water (in/out) 7°C/12°C

(4) Sound power based on measures made in compliance with Eurovent regulation 8/2

## Sizes and weights

UFB		20W	
Height	A	mm	219
Width	B	mm	571
Depth	C	mm	572
Weight		kg	16.5



## TUN

Ductable air-conditioning unit



- **UNIVERSAL CONFIGURATION**
- **VERSION WITH 4-6 ROW COIL**
- **VERSION WITH EXTRACTOR**

### Features

The air-conditioning units of the TUN series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements

- The **structure** is made of 1.5 mm thick hot galvanised sheet metal, insulated internally with a V0 insulation class. The unit is designed for any flow and/or intake channels to be connected. The unit can be installed horizontally or vertically and both are facilitated by the relative brackets.

- **Air-filtering** relies on standard G2 class filters in accordance with EN779 (6 mm thick), positioned on intake.

- Forward blade double intake centrifugal fans with a directly coupled motor. The single-phase 230V-50Hz multi-speed motor has three speeds that are selected via a control.

- Internal condensate **drip tray** made of 1 mm thick hot galvanised sheet metal.

- **4-6 row coils**, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded

sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.

- Post-heating 2-row coils **are also available**, made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes.

### Choosing the unit

By appropriately combining the variety of options available, it is possible to configure every model in a manner that satisfies all specific implant requirements.

#### Fields configurator:

1 2 3	4 5	6	7
Code		Version	
	Size		Configuration

#### Identification:

TUN

#### Size:

10, 15, 20, 25, 40

#### Version:

4 - 4 row coil

6 - 6 row coil

#### Configuration:

P - Powered

X - Extractor

Example of a sale code: **TUN104P**

This is a TUN unit, size 10 with a powered 4-row coil.



#### • M2S Mixing chamber 2 dampers

Section made of galvanised steel sheet with two air calibration dampers and louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

#### • M3S Mixing chamber 3 dampers

Section made of galvanised steel sheet with three air calibration dampers and louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pins made of galvanised steel. It must be coupled with the VRF accessory.

#### • FTF Soft bag filter section

Section made of galvanised steel sheet with F6 filtering degree soft bag filters. For different filtering degrees please contact the Aermec Sales Technical Dept. It must be coupled with a powered unit.

#### • B2R 2 row water coil

For 4-pipe systems, positioned internally, downstream the main coil.

#### • PBE Section with post-heating coil

The electric coil consists of armoured resistances fitted with a twin safety thermostat.

#### • SSL Module with silencer baffles

Section made of galvanised steel sheet with mineral wool silencer baffles covered in a polyethylene film in order to prevent flaking.

#### • S2Z 2-area damper (70-30%)

Damper made of galvanised steel sheet with opposite louvers for the external air flow to blend with the air circulation flow. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

#### • VRF Return ventilating section with a G4 filter

Ventilating unit equipped with an electronic rev shifter, contained in a galvanised steel sheet section with flat filters having a G4 efficiency (EN779).

#### • PMM Plenum with circular flow attachments

1.5 mm Plenum made of hot galvanised sheet metal. The plenum has multi-diameter circular plastic fittings (200 mm, 180 mm and 150 mm) for circular pipes to be connected.

#### • TPMC Plenum of delivery

Plenum to be used for the connection with circular canals. Made of galvanized steel with insulating mat with circular nozzles. Three sections closed. It can be used as a plenum, both as a plenum aspiration with circular channels.

#### • PMC Closed flow plenum

1.5 mm Plenum made of hot galvanised sheet metal. The plenum allows the flow to turn 90°. The installer must make the flow aperture.

#### • SAS Intake damper

Air calibration damper with louvers made of galvanised sheet steel. 50 mm louver pitch; 8 mm motorised regulation pin made of galvanised steel.

#### • GMD Flow grid with adjustable louvers

Grid with double row adjustable louvers for air to be introduced in the relative room. It can be installed directly on to the appliance by removing the flanges or on to the wall.

#### • GAP Intake grid

With louvers tilted at 45°; it can be installed directly on to the appliance by removing the flanges or on to the wall.

#### • FPI G4 filters for lower intake

#### • FPF G4 filters

#### • PX Control panel with only the switch-over

#### • WMT 05 Electro-mechanical thermostat

For fan coils installed in 2-pipe systems. The panel must be installed on the wall and protected electrically with an internal fuse. It has the following functions: on / off switch; cursor to select the heating / cooling modes (manual season change); cursor to select the fan speed (high, medium and low); temperature selector (+5°C to 30°C)

#### • WMT10 Control panel

For fan coils installed on the wall. Controls the fan coil operation according to the set mode. The panel must be wall mounted; it is to be used in 4-pipe and 2-pipe systems and systems with 2-pipes with resistance, with the possibility of connecting two ON - OFF type valves for the cut-off of the coil supply water. The panel is protected electrically by an internal fuse. The control has the following functions:

- 1) cursor to select the cooling or heating mode;
- 2) manual season change;
- 3) manual selection of the fan speed;
- 4) selection of the desired room temperature (+10°C to 30°C);
- 5) 2-pipe system management;
- 6) 4-pipe system management;
- 7) 2-pipe system management (cooling) + electrical resistance (heating);
- 8) thermostatic ventilation;
- 9) continuous ventilation;
- 10) continuous ventilation in cooling mode and thermostatic in heating mode.

Accessories compatibility

	TUN 10	TUN 15	TUN 20	TUN 25	TUN 40	TUN 40P
<b>M2S</b>	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5
<b>M3S</b>	M3S1	M3S2	M3S3	M3S4	M3S4	M3S5
<b>FTF</b>	FTF1	FTF2	FTF3	FTF4	FTF4	FTF5
<b>B2R</b>	B2R11	B2R21	B2R31	B2R41	B2R41	B2R51
<b>PBE</b>	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7
<b>SSL</b>	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5
<b>S2Z</b>	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5
<b>VRF</b>	VRF1	VRF3	VRF4	VRF5	VRF6	VRF7
<b>PMM</b>	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5
<b>TPMC</b>	TPMC1	TPMC2	TPMC3	TPMC4	TPMC4	TPMC5
<b>PMC</b>	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5
<b>SAS</b>	SAS1	SAS2	SAS3	SAS4	SAS4	SAS5
<b>GMD</b>	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5
<b>GAP</b>	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5
<b>FPI</b>	FPI11	FPI12	FPI13	FPI14	FPI14	FPI15
<b>FPF</b>	FPF1	FPF2	FPF3	FPF4	FPF4	FPF5
<b>PX</b>	•	•	•	•	•(2)	•(2)
<b>WMT 05</b>	•	•(1)	•(1)	•(1)	•(2)	•(2)
<b>WMT 10</b>	•	•(1)	•(1)	•(1)	•(2)	•(2)
<b>SIT3</b>	•	•	•	•	•	•

(1) SIT3 is to be used and the 2A fuse is to be replaced with a 4A fuse

(2) Install a relay, one per speed

## Technical data

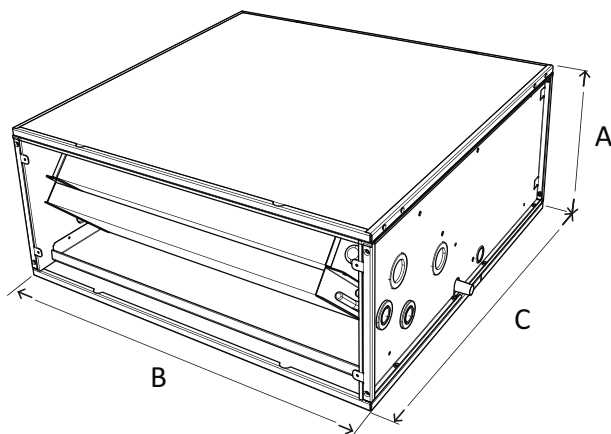
			10	15	20	25	40	10P	40P
<b>Cooling capacity with:</b>									
4-row coil <sup>(1)</sup>	total	kW	4,7	9,3	12,5	16,5	23,3	4,7	26,4
	sensible	kW	3,6	6,6	8,7	11,4	16,3	3,6	18,2
6-row coil <sup>(1)</sup>	total	kW	6,2	11,1	14,1	18,5	26,6	6,2	29,4
	sensible	kW	4,4	7,6	9,8	12,7	18,5	4,4	20,1
<b>Water flow rate</b>									
4-row coil		l/h	804	1599	2141	2832	4002	804	4536
6-row coil		l/h	1072	1910	2420	3184	4572	1072	5051
<b>Pressure drop</b>									
4-row coil <sup>(2)</sup>		kPa	3	16	33	33	60	3	56
6-row coil <sup>(2)</sup>		kPa	9	34	20	20	37	9	28
<b>Heating capacity with</b>			kW						
4-row coil <sup>(2)</sup>	total	kW	11,2	19	24,9	32,3	46,7	16,6	51,1
6-row coil <sup>(2)</sup>	total	kW	12,5	21,1	27,5	35,4	52,2	18,5	56,1
4-row coil	total	kW	5,5	9,3	12,1	16	25,9	6,4	30,8
6-row coil	total	kW	6,1	10,5	13,6	17,6	28,9	7,2	34,8
<b>Water flow rate</b>									
4-row coil		l/h	978	1663	2183	2831	4089	978	4475
6-row coil		l/h	1097	1849	2410	3101	4573	1097	4909
<b>Pressure drop</b>									
4-row coil		kPa	4	13	24	24	46	4	41
6-row coil		kPa	7	24	15	14	28	7	20
Heating capacity 2-row water coil		kW	7	11,7	15,3	20,5	27,9	7	31,8
Water flow rate		l/h	609	1026	1339	1792	2444	609	2786
Pressure drop		kPa	4	7	7	10	17	4	10
Electrical coil:									
Electric coil capacity		kW	4	8	10	12	20	6	20
No. of stages of the electric coil		n°	2	2	2	2	2	2	2
Power supply			400V/3/50Hz						
fan:									
Air flow rate <sup>(3)</sup>		m3/h	900	1500	2000	2500	4000	900	4000
Static pressure		Pa	110	150	170	150	120	330	220
Fan power supply		W	357	713	886	874	1771	713	1771
Fan input current		A	1,6	3,1	3,9	3,8	7,7	3,1	7,7
Poles		n°	2	2	4	4	4	2	4
Power supply			230V/1/50Hz						
<b>Filters:</b>									
Efficiency of flat filters <sup>(4)</sup> std/opt	STD/OPT		G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4	G2/G4
Efficiency of bag filters			F6	F6	F6	F6	F6	F6	F6
<b>Sound data:</b>									
Sound power		dB(A)	68	72	77	78	79	71	80
<b>Hydraulic connections:</b>									
Main coil collectors	Ø		1"	1"	1"	1"	1"	1"	1"
Additional coil	Ø		¾"	¾"	¾"	¾"	¾"	¾"	¾"

(1) Temperature of incoming air 27°C b.s.|19°C b.u.  
 Water temperature inlet 7°C  
 Water temperature outlet 12°C

(2) Temperature of incoming air 20°C  
 Water temperature inlet 70°C  
 Water temperature outlet 60°C

(3) At nominal flow rate with 4-row coil

(4) In compliance with EN 779



TUN HORIZONTAL INSTALLATION WITH EXTRACTOR  
FRONT VIEW

Mod. TUN		10	10P	15	20	25	40	40P
DIMENSIONS OF A HORIZONTAL INSTALLATION AND "EXTRACTOR" CONFIGURATION								
Height (A)	mm	300	300	300	390	390	390	390
Width (B)	mm	700	700	1050	1050	1475	1475	2100
Length (C)	mm	700	700	700	850	850	850	1000
Connection projection	mm	82	82	82	82	82	82	82
Number of fans	n°	1	2	2	1	1	2	2
UNIT NET WEIGHTS		10	10P	15	20	25	40	40P
4-row coil	kg	33	37	47	59	88	88	108
6-row coil	kg	35	38	49	61	92	92	108

## TS

Air handling units with cooling capacity from 4.85 up to 24.8 kW



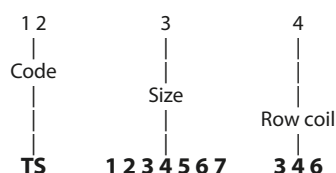
### Characteristics

- Compact unit for horizontal installation
- Structure made of Galvanized steel 10/10 sheet steel and internally covered with sheets of polyethylene and polyester to obtain improved thermal and acoustic insulation
- Condensate drip tray in stainless steel AISI 304 with insulation
- Coils with aluminium fins and copper pipes
- Statically and dynamically balanced centrifugal fans
- Three-speed electrical motor with running capacitor permanently activated and internal thermal protection
- **NOTE: Possibility to also have the engine with five speed.**
- Transmission system relay card for each speed (excluding the models TS13 and TS16)
- Useful static pressure available for any canalisation
- Large choice of distance commands
- Wide range of accessories to meet varying needs (class G3 air filter, post-heating coils, plenum suction assembly, mixer section, suction grille, delivery flanges with circular outlets or rectangular outlet)

### Choice of Unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most particular of system requirements.

#### Field configurer:



#### Code:

TS

#### Size:

1, 2, 3, 4, 5, 6, 7

#### Coil:

- 3 - 3-row coil
- 4 - 4-row coil
- 6 - 6-row coil

#### Models available:

**Standard with 3 speed electrical motor**

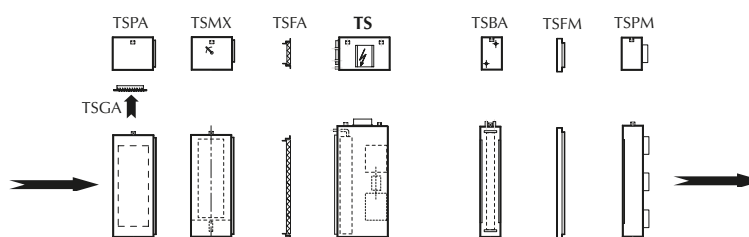
**TS 13 - 16 - 23 - 34 - 36 - 43 - 46 - 53 - 56 - 63 - 74 - 76**

**with 5 speed electrical motor**

**TS 435V - 465V - 535V - 565V - 745V - 765V**

### Accessories

- **TSBA:** 2-row coil for post-heating, contained in a delivery installation plenum
- **TSFA:** Class G4 air filter
- **TSFM:** Delivery flange with rectangular section
- **TSGA:** Horizontal suction grille with fixed fins to produce suction from below together with the TSPA accessory
- **TSMX:** Section that mixes the recirculating air and the external air. Calibration of the mix via the damper, motorisation is possible
- **TSPA:** Plenum with suction from below, to which the TSGA grille can be applied
- **TSPM:** Delivery plenum to be connected to the circular channels (with 2, 3 or 4 circular, 200 mm flanges).
- **VCT 2-way or 3-way valve**  
These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility. These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.
- **SWA:** External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
- **Control panels:** the characteristics of the control panels are described on the appropriate card.



## Technical data

Model	U.M.	TS 13	TS 16	TS 23	TS 34	TS 36	TS 43	TS 46	TS 53	TS 56	TS 63	TS 74	TS 76
							TS435V	TS465V	TS535V	TS565V		TS745V	TS765V
Cooling capacity	kW	4.85	5.80	7.9	9.6	10.5	11.1	13.3	13.9	16.5	16.6	21.9	24.8
Sensible cooling capacity	kW	3.75	4.45	6.4	7.6	8.3	8.95	10.7	9.8	11.7	13.1	17.8	20.1
Water side pressure drop	kPa	21	9	24	24	16	23	17	32	27	26	28	26
Water flow rate	l/h	830	1000	1360	1650	1810	1910	2290	2390	2840	2860	3770	4270
Heating capacity (70°C)	kW	9.80	12.58	15.50	19.70	21.52	21.60	27.49	25.90	32.89	35.50	46.30	52.06
Water side pressure drop	kPa	12	8	17	20	13	17	13	21	21	20	23	21
Water flow rate	l/h	840	1080	1330	1690	1850	1860	2360	2230	2830	3050	3980	4480
Nominal air flow rate	m <sup>3</sup> /h	930	930	1500	1600	1600	2050	2050	2400	2400	3600	4200	4200
Useful static pressure	(1) Pa	90	55	100	85	45	115	75	105	70	120	115	75
TSFA filter pressure drop	(2) Pa	13	13	11	12	12	13	13	11	11	16	25	25
Coil rows	n°.	3	6	3	4	6	3	6	3	6	3	4	6
Coil water connections	Ø"	G 3/4"	G 1"	G 3/4"	G 3/4"	G 1"	G 3/4"	G 1"	G 3/4"	G 1"	G 1"	G 1"	G 1 1/4"
Maximum water temperature	°C	80											
Ventilation speed number	bar	15	15	15	15	15	15	15	15	15	15	15	15
Motors	n°.	1	1	2	2	2	2	2	2	2	2	2	2
Ventilation speed number		3	3	3	3	3	3	3	3	3	3	3	3
Motors	n°.	1	1	1	1	1	1	1	1	1	1	1	1
Motor maximum power	W	225	225	345	345	345	550	550	550	550	600	830	830
Maximum input current	A	1	1	1,9	1,9	1,9	2,6	2,6	2,6	2,6	3,9	5,5	5,5
Sound pressure level	dB(A)	50	50	51	52	52	55	55	55	55	58	58	58
Power supply		230V~50Hz											

### Cooling

Room air temperature 27°C b.s./19°C b.u.; Water inlet temperature 7°C; ΔT water 5°C.

### Heating (70°C)

Room air temperature 20°C b.s.; Water inlet temperature 70°C; ΔT water 10°C.

(1) Rated capacity (maximum speed) without air filter

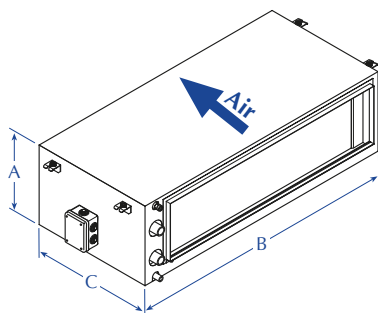
(2) Air filter (TSFA accessory) at rated capacity

TS	TSBAx	TSFAx	TSFMx	TSGAx	TSMXx	TSPAx	TSPMx	VCT	VCT	FMT	PXAE	WMT	SWA**
	10	10	10	10	10	10	10	(2 vie)	(3 vie)	10		5	
	20/30	20/30	20/30	20/40	20/30	20/30	20/30			21		10	
	40	40	40		40	40	40					6	
	50	50	50	50/60/70	50	50	50						
	60/70	60/70	60/70		60/70	60/70	60/70						
13 - 16	*	*	*	*	*	*	*	VCT102	VCT103	.	.	.	+(x 1-2)
23	*	*	*	*	*	*	*	VCT102	VCT103	.	.	.	+(x 1-2)
34 - 36	*	*	*	*	*	*	*	VCT102	VCT103	.	.	.	+(x 1-2)
43 - 46	*	*	*	*	*	*	*	VCT202	VCT203	.	.	.	+(x 1-2)
53	*	*	*	*	*	*	*	VCT202	VCT203	.	.	.	+(x 1-2)
56	*	*	*	*	*	*	*	VCT402	VCT403	.	.	.	+(x 1-2)
63	*	*	*	*	*	*	*	VCT402	VCT403	.	.	.	+(x 1-2)
74 - 76	*	*	*	*	*	*	*	VCT402P	VCT403P	.	.	.	+(x 1-2)

\* = The code of these accessories is obtained by substituting the letter "x" with the number indicating the corresponding size of the unit

\*\* = SWA accessories are matched with FMT21 control panels.

## Dimensions (mm)



		TS13	TS16	TS23	TS34	TS36	TS43	TS46	TS53	TS56	TS63	TS74	TS76
Height (A)	[mm]	295	295	295	295	295	325	325	325	325	375	375	375
Width (B)	[mm]	645	645	1000	1000	1000	1100	1100	1345	1345	1345	1345	1345
Depth (C)	[mm]	520	520	520	520	520	600	600	600	600	600	600	600
Weight	[kg]	25	27	35	38	42	42	46	48	52	56	61	67,5

## TDA Air handling units Air flow rate from 800 to 3,500 cu.m/h



- **HORIZONTAL OR VERTICAL INSTALLATION**
- **VERSION WITH 3-4 ROW WATER-TYPE COIL**
- **VERSION WITH 2-ROW DIRECT EXPANSION COIL**
- **VERSION WITH EXTRACTOR**

### Characteristics

The conditioning units in the TDA range have been designed for small and medium sized rooms in civil, commercial and hotel type systems.

The units are designed to guarantee high head levels and are suitable for both vertical and horizontal installation, to ensure greater versatility of use. The outstanding aesthetic finish of the product makes it perfect for installation in box rooms, bathrooms, suspended ceilings or in the room itself.

The wide range of sizes and accessories available means it's easy to choose the best model for the specific requirements.

• **Structure** with hot galvanised steel sandwich

panels, 15mm thick, with interposed polyurethane foam (density 40kg/m<sup>3</sup>). The delivery and suction panels are equipped with flanges for the collets to any air channels and can be moved to create different air flow configurations. The horizontal or vertical fixing to the walls of the unit is made possible by the appropriate brackets.

• **New centrifugal fans** with high head levels, double suction, forward blades and directly coupled motor. The single-phase 230V-50Hz motor is multi-speed (of which three speeds can be selected).

• **Condensated collection** basin in galvanised

steel, suitable for both vertical and horizontal installation.

• **Coils** with 3 rows, that can be fed with hot or refrigerated water. Made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes. They are equipped with threaded sleeves for the plumbing connections and the air breather valve. The coils can be rotated on site.

• **A 2-row**, direct expansion coil is also available. It is made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes.

### Accessories

#### • FAF filter G4 on intake

Contained in the special housing, it is made of synthetic fibre and pleated geometry; the U-shaped frame is in galvanised sheet metal with two galvanised wire support nets

#### • SM Mixing chamber with G4 filter and dampers

Galvanised steel housing complete with two air adjustment dampers with opposed fins in galvanised steel. The housing comes complete with a synthetic fibre filter (efficiency class G4, in accordance with standard EN779).

#### • SR Intake damper

Consisting of a frame with galvanised steel ribbed fins. The fins are moved by nylon toothed wheels.

#### • GM Delivery grille

Grille with double row of adjustable fins to introduce air into the room.

#### • GA Suction grille

With tilted fins fixed at 45°; can be installed directly on the device (by removing the flange) or on the wall.

#### • CMA Outer casing for grille

#### • BP One-row water-type post-heating coil applied outside the unit

Contained in a special, thermally-insulated housing, it is installed on the air delivery flange only and consists of a 1-row turbo-type coil.

#### • BR Electric post-heating coil applied outside the unit

The machines can be fitted with the electric coil accessory of suitable capacity. It is installed downstream of the finned coil only.

#### • VCT 2-way or 3-way valve

These are 2-way and 3-way ball valves made of bronze, with female/female connections that can

be servo-activated via servo commands. The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility.

These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.

#### • PM Delivery plenum with circular start-up

Sandwich panel in hot galvanised steel, with interposed polyurethane foam (40kg/m<sup>3</sup>). The panel is 15mm thick. It is installed in place of the delivery panel with rectangular flange, using the same 4 self-threading screws.

#### • Control panels:

PX with selector only

WMT05 Electromechanical thermostat.

WMT10 control panel

	TDA09	TDA15	TDA21	TDA 28	TDA37
FAF	FAF1	FAF2	FAF3	FAF4	FAF4
SM	SM1	SM2	SM3	SM4	SM5
SR	SR1	SR2	SR3	SR4	SR4
GM	GM5	GM6	GM7	GM8	GM8
GA	GA5	GA6	GA7	GA8	GA8
CMA	CMA5	CMA6	CMA7	CMA8	CMA8
BP	BP1	BP2	BP3	BP4	BP5
BR	BR1	BR2	BR3	BR4	BR5
VCT (2 way)	VCT102	VCT202	VCT402	VCT402P	VCT402P
VCT (3 way)	VCT103	VCT203	VCT403	VCT403P	VCT403P
PM	PM1	PM2	PM3	PM4	PM4
PX	.	.	.	.	•(2)
WMT05	.	•(1)	•(1)	•(1)	•(2)
WMT10	.	•(1)	•(1)	•(1)	•(2)

(1) Envision the use of SIT and the replacement of the AA fuse with one AA fuse

(2) Envisions return relay, one per speed

## Choice of Unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most particular of system requirements.

### Field configurer:

1 2 3  
|  
Code

4 6  
|  
Size

6  
|  
Version

### Code:

TDA

### Size:

09, 15, 21, 28, 37

### Version:

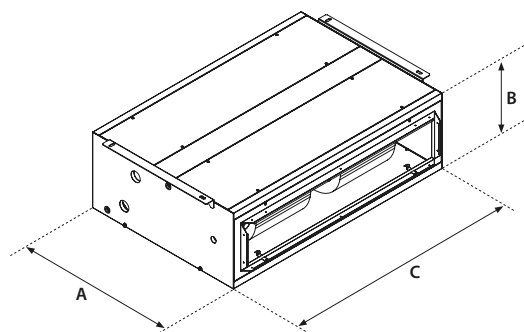
3 - 3-row water coil  
4 - 4-row water coil  
E - 2-row direct expansion coil  
X - Extractor (without coil)

## Technical data

Mod. TDA		9	15	21	28	37
Nominal air flow rate	m <sup>3</sup> /h	800	1400	2000	2700	3500
	l/s	222	389	556	750	972
Useful static pressure (1)	Pa	277	330	227	150	240
Cooling capacity with 3-row coil (2)	total kW	4,90	7,40	11,10	14,70	17,90
	sensible kW	3,50	5,60	8,20	10,90	13,70
Cooling capacity with 4-row coil (2)	total kW	6,10	9,70	13,10	18,40	22,30
	sensible kW	4,30	6,90	9,40	12,50	15,20
Cooling capacity with R-407C coil (3)	totale kW	5,10	7,50	10,70	14,10	16,70
	sensibile kW	3,50	5,20	7,40	9,90	12,40
Heating capacity with 3-row coil (4)	kW	10,40	16,60	24,20	32,10	41,20
Heating capacity with 4-row coil (4)	kW	12,10	19,90	27,30	36,80	45,40
Heating coil capacity for 4-pipe systems (4)	kW	5,20	8,80	12,60	16,40	20,90
Heating capacity with 3-row coil (5)	KW	5,10	8,10	11,90	15,70	20,10
Heating capacity with 4-row coil (5)	KW	6,00	9,80	13,40	18,20	22,30
Heating capacity with coil for 4-pipe systems (5)	KW	2,50	4,30	6,00	7,80	10,00
Electric coil capacity	KW	4	6	8	10	12
Electric coil power supply		230V~/50Hz				
Fans	n°	1	2	2	1	2
Motors		1	2	2	1	2
Total fan input power	kW	0,357	0,713	0,736	0,874	1,771
Fan input current	A	1,6	3,1	3,2	3,8	7,7
Fan power supply		230V~/50Hz				
Filter efficiency (6)		G4	G4	G4	G4	G4
Sound power level (7)	dB(A)	62	63	70	72	73
<b>Connections</b>						
Water battery collectors	Ø mm	1"	1"	1"	1"	1"
Direct expansion liquid coil pipes	Øi mm	10	10	12	16	16
Direct expansion gas coil pipes	Øu	18	22	22	28	28
Condensate discharge	Ø mm	3/8"	3/8"	1/2"	1/2"	1/2"

- (1) at nominal flow rate with 3-row coil  
(2) Incoming air temperature 27°C d.b. 19°C w.b.; water temperature (In-Out) 7°C-12°C  
(3) Incoming air temperature 27°C d.b. 19°C w.b.; average evap. temp. 7°C  
(4) Incoming air temperature 20°C; water temperature (In-Out) 70°C-60°C  
(5) Incoming air temperature 20°C; water temperature (In-Out) 45°C-40°C  
(6) In accordance with standard EN 779  
(7) In accordance with standard UNI EN ISO 9614

## Dimensions (mm)



TDA		9	15	21	28	37
Height (B)	mm	300	320	320	380	380
Width (C)	mm	920	1000	1400	1400	1400
Length (A)	mm	630	670	670	790	790
Net weight *	kg	42	53,00	71,00	88,00	91,00

(\*) with 4-row coil



## TA

**Air handling unit with 4 row cooling coil from 4.5 up to 32 kW  
5.5 a 40 kW 6 row coil  
heating efficiency with 4 row coil from 14.0 up to 78.0 kW  
15.5 a 87.5 kW 6 row coil**



- **HORIZONTAL OR VERTICAL CONFIGURATION**
- **VERSION WITH 4–6 ROWS WATER COIL**
- **VERSION WITH 4 ROW EXPANSION COIL USING R410A**
- **VERSION WITH EXTRACTOR**

### Features

The air conditioning units in the TA range are destined to civil, commercial and hotel systems, for applications in small to medium sized environments.

The units in the TA range are characterised for their compactness (indispensable requisite for typical suspended-ceiling applications), the low noise and high useful static pressure.

The great availability of accessories (e.g. bag filters and the mixing chambers with 3 dampers) allows to satisfy the most varied plant requirements

- **Structure** realised with sandwich panels with thickness of 15 mm with polyurethane (density 40 kg/m<sup>3</sup>). The intake panel is equipped with a flange for fitting to any air channels.

Horizontal or vertical fixing to a wall is made easy by the brackets.

- **Filtration** of the air entrusted to class G4 filters in compliance with EN779 (thickness 50mm) as per standard positioned at intake.
- **Fans** double intake centrifugal with forward blades and directly coupled motor. The 230V-50Hz single-phase motor has many speeds, of which three can be selected via the control panel.
- **Condensate drip tray** interior isolated in aluminium alloy.
- **Coils with 4, 6 rows** that can be fed with hot or cooled water realised in coil in copper piping with aluminium louvers blocked via mechanical expansion of the pipes. Threaded sleeves

are supplied for the hydraulic attachments and the air vent valve.

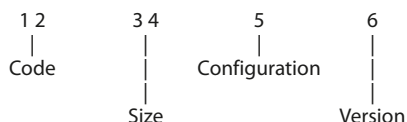
The possibility to rotate the coils on site is envisioned.

- Also available are coils with 4 rows with direct expansion operating with R410A fluid and post-heating coils with 1 and 2 rows realised in copper piping with aluminium louvers blocked via mechanical expansion of the pipes.

### Choosing the unit

By appropriately combining the variety of options available, it is possible to configure every model in a manner that satisfies all specific implant requirements.

#### Fields configurator:



#### Code:

TA

#### Size:

09, 11, 15, 19, 24, 33, 40, 50

#### Configuration:

- H - Horizontal
- V - Vertical
- X - Extractor

#### Version:

- 4 - Coil with 4 rows
- 6 - Coil with 6 rows
- E - R410A coil with direct expansion 4 left rows

Example of a sale code: **TA09H4**

This is a TA unit, size 09 horizontal with 4 row coil.

## Accessories

- **M2S 2 damper mixing chamber**  
Galvanised sheet steel section complete with two air calibration dampers with galvanised sheet steel louvers.  
Louver pitch 50 mm; regulation pin in galvanised steel with diameter 8 mm mechanisation.
- **M3S 3 damper mixing chamber**  
Galvanised sheet steel section complete with three air calibration dampers and galvanised sheet steel louvers.  
Louver pitch 50 mm; regulation pins in galvanised steel with diameter 8 mm mechanisation.  
Va must be coupled with the VRF accessory
- **FTF Soft bag filters section**  
Galvanised sheet steel section complete with soft bag filters with F6 filtration level.  
For different filtrations, contact the AERMEC technical-sales dept.
- **B1R 1 row water coil**  
For 4 pipe systems, positioned internally, downstream from the main coil.  
Threaded sleeves are supplied for the hydraulic attachments and the air vent valve.
- **B2R 2 row water coil**  
For 4 pipe systems, positioned internally, downstream from the main coil.  
Threaded sleeves are supplied for the hydraulic attachments and the air vent valve.
- **VCT 2-way or 3-way valve**  
These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility.  
These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.
- **PBE Section with post-heating coil**  
The electric coil is made up from armoured resistances equipped with double safety thermostat.
- **SSL Module with seven silencers**  
Galvanised sheet steel section complete with seven silencers in mineral wool covered with a polyethylene film to prevent exfoliation.
- **S2Z Damper with 2 areas (70-30%)**  
Galvanised sheet steel damper with opposite louvers for the mixture of the external air flow and the flow of recirculation air. Louver pitch 50 mm; regulation pin in galvanised steel with diameter 8 mm mechanisation.
- **VRF Recovery fan section with G4 filter**  
Fan unit, equipped with electronic varistor of the number of revs. contained in a section in galvanised sheet steel equipped with flat filters with G4 efficiency (EN779).
- **PMM Plenum with multiple circular flows**  
Plenum equipped with sandwich panelling with thickness of 15 mm in galvanised steel with polyurethane insulation. The plenum is supplied with multi-diameter circular attachments (200 mm, 180 mm and 150 mm) in plastic to allow the connection of circular conduits.
- **PMC Closed flow plenum**  
Plenum closed equipped with sandwich paneling with thickness of 15 mm in galvanised steel with polyurethane insulation.  
The plenum allows to turn the flow by 90°. The opening of the flow hole is the installer's responsibility.
- **SAS Intake damper**  
Air calibration damper with galvanised sheet steel louvers.  
Louver pitch 50 mm; regulation pin in galvanised steel with diameter 8 mm mechanisation.
- **GMD Flow grid with moveable louvers**  
Grid with double order of moveable louvers for the introduction of air into the room to be conditioned. It can be installed directly onto the appliance by removing the flanges or on the wall.
- **GAP Intake grid**  
With fixed louvers inclined by 45°; can be installed directly onto the appliance by removing the flanges or on the wall.
- **FPI G4 flange filters**
- **PX Switch-over only control panel**
- **WMT 05 Electro-mechanical thermostat**  
For fan coils installed in 2 pipe systems The panel must be installed on the wall and protected electrically by an internal fuse.  
Has the following functions: on/off switch; cursor for the selection of heating/cooling modes (manual season change); cursor for the selection of fan speed (high, medium and low); temperature selector switch (+5°C÷30°C)
- **WMT10 Control panel**  
For can coils with wall installation.  
Control functioning of the fan coil depending on the mode set.  
The panel must be mounted on the wall, it is used on 4 pipe and 2 pipe and 2 pipe with resistance systems, with the possibility of connecting two On - Off type valves for the cut-off of the coil supply water. The panel is protected electrically by an internal fuse.  
The control has the following functions: cursor for the selection of the cooling or heating functioning mode;  
manual season change;  
manual selection of the fan speed  
selection of the desired environment temperature (+10°C÷30°C);  
2 pipe systems management;  
4 pipe systems management;  
2 pipe systems management (cooling) + electrical resistance (heating);  
thermostat ventilation;  
continuous ventilation;  
continuous ventilation in cooling mode and thermostat ventilation in heating mode.

Accessories compatibility								
	TA 09	TA 11	TA 15	TA 19	TA 24	TA 33	TA 40	TA 50
<b>M2S</b>	M2S1	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5	M2S5
<b>M3S</b>	M3S1	M3S1	M3S2	M3S3	M3S4	M3S4	M3S5	M3S5
<b>FTF</b>	FTF1	FTF1	FTF2	FTF3	FTF4	FTF4	FTF5	FTF5
<b>B1R</b>	B1R1	B1R1	B1R2	B1R3	B1R4	B1R4	B1R5	B1R5
<b>B2R</b>	B2R1	B2R1	B2R2	B2R3	B2R4	B2R4	B2R5	B2R5
<b>VCT (2 way)</b>	VCT 102	VCT 102	VCT 202	VCT 202	VCT 202 o 402	VCT 402 o 402P	VCT 402P	VCT 402P
<b>VCT (3 way)</b>	VCT 103	VCT 103	VCT 202	VCT 403 o 403P	VCT 403 o 403P	-	-	-
<b>PBE</b>	PBE1	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7	PBE8
<b>SSL</b>	SSL1	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5	SSL5
<b>S2Z</b>	S2Z1	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5	S2Z5
<b>VRF</b>	VRF1	VRF2	VRF3	VRF4	VRF5	VRF6	VRF7	VRF8
<b>PMM</b>	PMM1	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5	PMM5
<b>PMC</b>	PMC1	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5	PMC5
<b>SAS</b>	SAS1	SAS1	SAS2	SAS3	SAS4	SAS4	SAS5	SAS5
<b>GMD</b>	GMD1	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5	GMD5
<b>GAP</b>	GAP1	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5	GAP5
<b>FPI</b>	FPI1	FPI1	FPI2	FPI3	FPI4	FPI4	FPI5	FPI5
<b>PX</b>	•	•	•	•	•	•(2)	•(2)	•(2)
<b>WMT 05</b>	•	•(1)	•(1)	•(1)	•(1)	•(2)	•(2)	•(2)
<b>WMT 10</b>	•	•(1)	•(1)	•(1)	•(1)	•(2)	•(2)	•(2)

(1) Envision the use of SIT and the replacement of the 2A fuse with one 4A fuse

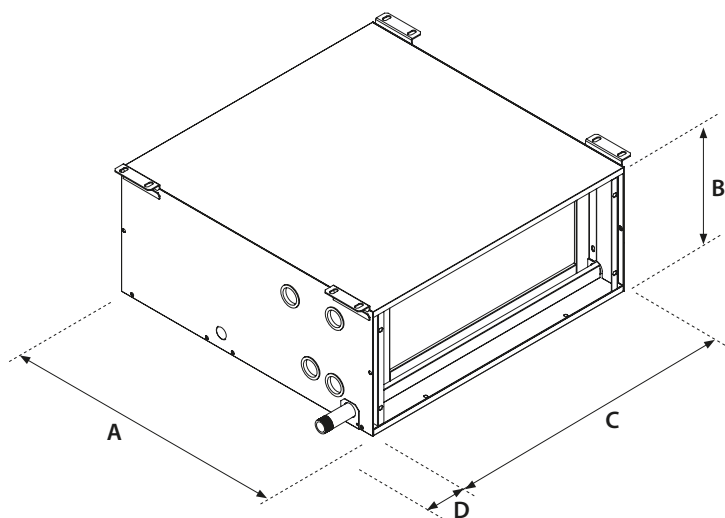
(2) Envisions return relay, one per speed

## Technical data

Mod. TA		9	11	15	19	24	33	40	50
Nominal air flow rate	m <sup>3</sup> /h	900	1100	1500	1900	2400	3300	4000	5000
	l/s	250	306	417	528	667	917	1111	1389
Useful static pressure (1)	Pa	110	277	249	223	165	215	220	163
Cooling capacity with 4 row coil (2)	total	kW	4.7	5.7	8.7	12.4	17.3	21.7	27.2
	sensible	kW	3.5	4.2	6.2	8.3	11.2	14.3	18.0
Cooling capacity with 6 row coil (2)	total	kW	5.4	6.7	11.7	15.5	20.6	26.3	33.5
	sensible	kW	3.9	4.7	7.5	9.8	12.8	16.6	20.9
Cooling capacity with 4 row coil with direct exp.R-410A (3)	total	kW	6.6	7.3	11.0	14.2	19.2	23.0	30.5
	sensible	kW	4.2	4.7	7.0	9.1	12.1	14.8	19.4
Heating capacity with 4 row coil (4)	kW	14.2	16.6	23.9	30.8	40.6	52.2	65.8	78.3
Heating capacity with 6 row coil (4)	kW	15.7	18.5	26.6	34.2	44.3	58.0	72.6	87.5
1 row water coil heating capacity for 4 row pipes (8)	kW	5.2	5.7	9.2	11.4	15.9	18.3	25.2	27.7
2 row water coil heating capacity for 4 row pipes (8)	KW	8.4	9.5	14.2	17.9	24.3	29.9	38.9	44.9
Heating capacity with 4 row coil (5)	KW	5.5	6.4	9.3	12.1	16.0	20.6	25.9	30.8
Heating capacity with 6 row coil (5)	KW	6.1	7.2	10.5	13.6	17.6	23.0	28.9	34.8
1 row water coil heating capacity for 4 row pipes (5)	KW	2.2	2.4	4.0	4.9	6.9	7.9	10.9	12.0
2 row water coil heating capacity for 4 row pipes (5)	KW	3.6	4.1	6.2	7.8	10.6	13.0	16.9	19.5
Electric coil capacity	KW	4	6	8	10	12	16	20	24
Number of electric coil stages	n°	2	2	2	2	2	2	2	2
Electric coil power supply		400V-3-50Hz							
Fans	n°	1	2	2	1	1	2	2	2
Motors	n°	1	2	2	1	1	2	2	2
Fans total input power	W	357	713	713	886	874	1771	1771	2852
Fans input current	A	1,6	3,1	3,1	3,9	3,8	7,7	7,7	12,4
Fans power supply		230V-1-50Hz							
Poles	n°	2	2	2	4	4	4	4	4
Flat filters capacity (6)		G4	G4	G4	G4	G4	G4	G4	G4
Soft bag filters efficiency (6)		F6	F6	F6	F6	F6	F6	F6	F6
Sound power level (7)	dB(A)	63	66	67	72	74	75	76	79
<b>Connections</b>									
Coils collectors	Ø inc.	1"	1"	1"	1"	1"	1"	1"	1"
Direct expansion coil pipes	IN	Ø mm.	16	16	16	16	16	22	22
	OUT	Ø mm.	22	22	22	22	22	28	28
Condensate Drain	Ø inc.	¾	¾	¾	¾	¾	¾	¾	¾

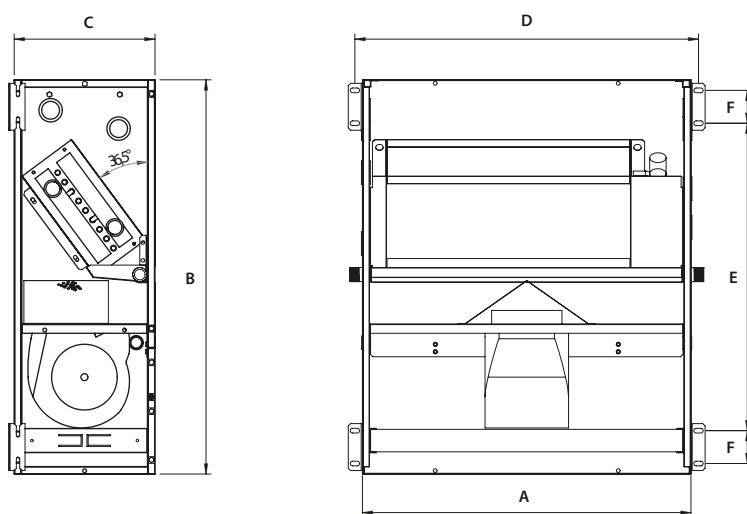
- (1) At nominal capacity with 4 row coil  
(2) Entry air temperature 27°C d.b. 19°C w.b.; water temperature (Ent-Ex) 7°C - 12°C  
(3) Entry air temperature 27°C d.b. 19°C w.b.; medium evap. temperature 2°C  
(4) Entry air temperature 10°C; Water temperature (Ent-Ex) 70°C - 60°C  
(5) Entry air temperature 20°C; Water temperature (Ent-Ex) 45°C - 40°C  
(6) Inc with the EN 779 Standard  
(7) Sound power in compliance with UNIX EN ISO 9614-2 Standards  
(8) Entry air temperature 15°C; Water temperature (Sent-Ex) 70°C - 60°C

## Dimensional data (mm)



TA HORIZONTAL INSTALLATION AND WITH EXTRACTOR

Mod. TA		9	11	15	19	24	33	40	50
<b>HORIZONTAL CONFIGURATION DIMENSIONS AND "EXTRACTOR" CONFIGURATION</b>									
Height (B)	mm	300	300	300	390	390	390	390	390
Width (C)	mm	700	700	1050	1050	1475	1475	2100	2100
Length (A)	mm	700	700	700	850	850	850	1000	1000
Connections projection (D)	mm	82	82	82	82	82	82	82	82
Number of fans	n°	1	2	2	1	1	2	2	2



TA VERTICAL INSTALLATION

Mod. TA		9	11	15	19	24	33	40	50
<b>VERTICAL CONFIGURATION DIMENSIONS</b>									
Height (B)	mm	840	840	840	1090	1090	1090	1090	1090
Width (C)	mm	300	300	300	390	390	390	390	390
Length (A)	mm	700	700	1050	1050	1475	1475	2099	2099
Fixing points (D)	mm	732	732	1082	1082	1507	1507	2131	2131
(E)	mm	655	655	655	905	905	905	905	905
(F)	mm	70	70	70	70	70	70	70	70
Number of fans	n°	1	2	2	1	1	2	2	2

<b>UNIT NET WEIGHTS</b>		9	11	15	19	24	33	40	50
4 row coil	mm	28	33	45	60	78	86	135	140
6 row coil	kg	30	35	47	62	81	89	139	144
Extractor	kg								



The TN units are destined to commercial and industrial plants for medium size rooms.

The series consists of eight sizes with nominal air flow from 3000 m<sup>3</sup>/h to 23000 m<sup>3</sup>/h and allows the filtration, heating and / or cooling treatments.

The performances are ensured by high efficiency heat exchangers and high pressure fans coupled to the motor by variable pulley and belt.

The compactness, low noise level, and the wide range of accessories gives the TN series a huge versatility in order to adapt to customer requirements: in addition to the possibility of transforming the model from horizontal to vertical and the contrary too, it has been chosen to add a enhanced configuration to ensure a higher pressure of the fan.

### Features

#### VERSIONS:

- 8 available sizes in vertical configuration with the possibility to **change them in horizontal version**.
- **Enhanced configuration** to ensure a higher pressure of the fan.

#### FRAME:

- The frame is made of aluminum profiles with sandwich panels made of galvanized steel inside and prepainted galvanized steel RAL 9002 outside with polyurethane insulation (density 40 kg / m<sup>3</sup>) and thickness of 25 mm. Both panels of the base unit and panels of the plenum are provided with pre-cuts which allow to make them compatible with the integration of accessories. The fastening of the panels through profile block panel, ensures a perfect seal between panel and frame, and an extreme ease of assembly/ disassembly of the panels. The 3 ways corner joint is made of nylon reinforced with glass fibers. The condensate drain pan, in galvanized steel, is provided with threaded drain connection on both sides and it is suitable for both horizontal and vertical installation of the unit.

#### FANS:

- Fans are centrifugal type, double suction and forward blades with high performances.

#### MOTORS:

- The installed electrical motors are asynchronous three-phase, with closed frame and outside ventilation, comply with the regulations IEC, CEI, UNEL (protection class IP55), single speed (4 poles).

#### TRANSMISSIONS:

- Pulleys are with variable diameter to better set of the fan to the installation. Belts can be SPA or SPB type. They are supplied with conical clamping, "Taperlock" type and are statically and dynamically balanced.

#### WATER HEAT EXCHANGERS:

- The water heat exchangers are made of copper pipes and aluminum fins, blocked by mechanical expansion of the tubes; the main coil can be 4 or 6 rows (hot or cold) and 2, 3 or 4 rows the secondary one (only hot). The filtration is carried out by 50 mm thick synthetic filters with G4 efficiency class (according to EN 779) placed on suction side.

#### FILTERS

These filters are easily removable to facilitate their maintenance and cleaning; they are placed on guides of the main coils section.

The removal of filters can be done pulling them sideways through the door on the panel, connections side.

With the accessory FTMxT, the filtration is made through compact filters with a F7 filtration degree.

- **PLxT** supply and suction plenum: compatible with GAxT, GMxT and TPPLxT.
- **FT7MxT** compact filters F7 on fans supply: compatible with GMxT, SAxT and TPPxT.
- **B2RxT - B3RxT - B4RxT** batteria a acqua calda a 2 - 3 - 4 ranghi per impianti a 4 tubi.
- **SAxT** suction damper: to be installed on the base unit or on plenums.
- **GMxT** supply grille with adjustable fins: to be installed on the base unit or on plenums.
- **GAxT** suction grille with fixed fins, 45° bended: to be installed on the base unit or on plenums.
- **TPVSxT** protection roof for vertical installation with up supply: to be installed on the base unit.
- **TPVFXT** protection roof for vertical installation: to be installed on PLxT, FT7MxT and vertical base unit with front supply.
- **TPLxT** protection roof for horizontal version with front supply: to be installed on the base unit.
- **TPPLxT** plenums protection roof for horizontal installation with front supply: to be installed on PLxT e FT7MxT from size 3 to 8.
- **TPFTLxT** bag filter protection roof for line installation with front supply.
- **P50MBT** corners support feet for horizontal and vertical versions.
- **P50ACT** side support feet for horizontal version.

	Montage	TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
GAxT	V - O	GA1T	GA2T	GA3T	GA4T	GA5T	GA6T	GA7T	GA8T
GMxT	V - O	GM1T	GM2T	GM3T	GM4T	GM5T	GM6T	GM7T	GM8T
SAxT	V - O	SA1T	SA2T	SA3T	SA4T	SA5T	SA6T	SA7T	SA8T
B2RxT	V - O	B2R1T	B2R2T	B2R3T	B2R4T	B2R5T	B2R6T	B2R7T	B2R8T
B3RxT	V - O	B3R1T	B3R2T	B3R3T	B3R4T	B3R5T	B3R6T	B3R7T	B3R8T
B4RxT	V - O	B4R1T	B4R2T	B4R3T	B4R4T	B4R5T	B4R6T	B4R7T	B4R8T
PLxT	V - O	PL1T	PL2T	PL3T	PL4T	PL5T	PL6T	PL7T	PL8T
FT7MxT	V - O	FT7M1T	FT7M2T	FT7M3T	FT7M4T	FT7M5T	FT7M6T	FT7M7T	FT7M8T
TPVSxT	V	TPVS1T	TPVS2T	TPVS3T	TPVS4T	TPVS5T	TPVS6T	TPVS7T	TPVS8T
TPVFXT	V	TPVF1T	TPVF2T	TPVF3T	TPVF4T	TPVF5T	TPVF6T	TPVF7T	TPVF8T
TPLxT	O	TPL1T	TPL2T	TPL3T	TPL4T	TPL5T	TPL6T	TPL7T	TPL8T
TPPLxT	O	TPPL1T	TPPL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
TPFTLxT	O	TPFTL1T	TPFTL2T	TPPL3T	TPPL4T	TPPL5T	TPPL6T	TPPL7T	TPPL8T
P50MBT	V - O	P50MBT							
P50ACT	O	P50ACT							

- V - O** = This accessory can be mounted both on the vertical version and horizontal version;  
**V** = This accessory can be mounted only on the vertical version;  
**O** = This accessory can be mounted only on the horizontal version;

## Technical data

			TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
Max. airflow	1	m <sup>3</sup> /h	3000	4100	5650	7350	9300	11700	15500	20000
Max. airflow	2	m <sup>3</sup> /h	3500	4700	6400	8000	10000	13400	17800	20000
Max. airflow	3	m <sup>3</sup> /h	3500	4700	6400	8400	10900	13400	17800	23000
Fans available pressure										
Maximum fans	4	Base unit	Pa	215	235	236	226	156	193	131
	4	Enhanced unit	Pa	390	407	458	454	340	438	381
Cooling power with coils 4 rows	5	Total	kW	15,6	21,3	29,1	38,1	44,8	56,7	96,4
		Sensible	kW	10,7	14,7	20,1	26,2	33,3	41,7	70,9
Cooling power with coils 6 rows	5	Total	kW	20	27,4	37,7	49,2	58,3	74,5	127,8
		Sensible	kW	13,4	18,3	25,2	32,8	41,1	51,8	88,5
Cooling power with coils 4 rows	6	Total	kW	18,9	25,8	35,3	46,3	56,1	70,7	120,2
		Sensible	kW	12	16,4	22,4	29,3	37,5	46,9	79,8
Cooling power with coils 6 rows	6	Total	kW	23,9	32,9	45,3	59,2	71,6	90,6	155,1
		Sensible	kW	15	20,5	28,3	36,9	46,4	58,3	99,6
Heating power with coils 2 rows	7	kW	25,2	34	46,8	61,5	84,4	103,8	138	178,5
Heating power with coils 3 rows	7	kW	33,5	45,6	62,7	82	110,8	137,3	182,5	234,4
Heating power with coils 4 rows	7	kW	40	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating power with coils 6 rows	7	kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1
Heating power with coils 2 rows	8	kW	14,7	19,8	27,3	36	49	60,3	80,1	103,8
Heating power with coils 3 rows	8	kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating power with coils 4 rows	8	kW	23,4	31,9	43,7	57	76,3	94,8	125,8	161,4
Heating power with coils 6 rows	8	kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6
<b>COILS</b>										
Manifolds diameter 2 rows			1"	1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2
Manifolds diameter 3 rows			1"	1"	1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2
Manifolds diameter 4 rows			1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"
Manifolds diameter 6 rows			1"	1"	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	2"
Condensate discharge diameter			1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F	1"M- 3/4"F
<b>FAN</b>										
			280	280	315	315	400	400	500	500
<b>MOTOR</b>										
Power supply		V/n°/Hz					400V/3/50Hz			
Power/Poles (base unit)		kW/n°	0,75 / 4	1,1 / 4	1,5 / 4	2,2 / 4	2,2 / 4	4 / 4	4 / 4	5,5 / 4
Power/Poles (enhanced unit)		kW/n°	1,1 / 4	1,5 / 4	2,2 / 4	3/4	3/4	5,5 / 4	5,5 / 4	7,5 / 4
<b>FILTERS</b>										
Plane filters efficiency	9		G4	G4	G4	G4	G4	G4	G4	G4
Compact filters efficiency (accessory)	9		F7	F7	F7	F7	F7	F7	F7	F7
Mouth sound pressure	10		52	54	55	57	56	58	59	64

note (1): with cooling coil ;

note (2): with heating coil, base unit;

note (3): with heating coil, enhanced unit;

nota (4): alla portata aria massima 1 with cooling coil 4 rows and filters G4 fouling medium life

note (5): Air temperature enters 27° C d.b. 19° C w.b.; water temperature (In-Out) 7° C - 12°C;

nota (6): Air temperature enters 27° C d.b 19° C w.b.; water temperature (In-Out) 5° C - 10°C;

nota (7): Air temperature enters 10° C; water temperature (In-Out) 70° C - 60°C;

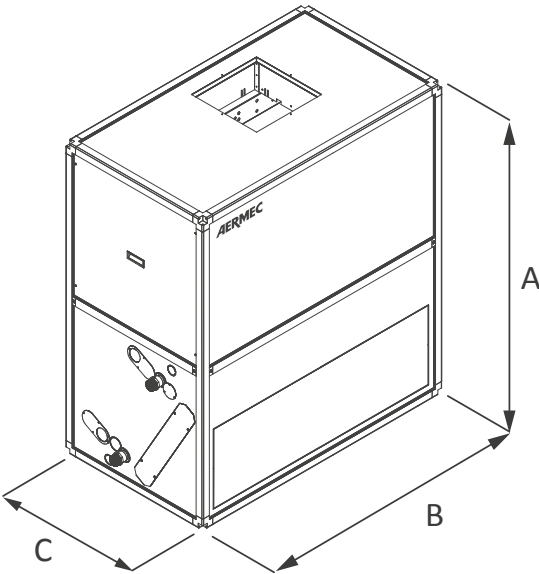
nota (8): Air temperature enters 10° C; water temperature (In-Out) 45° C - 40°C;

nota (9): comply with the regulation EN 779;

nota (10): d = 10 m, Q =2, base version, at min. pressure, nominal air flow with cooling coil.



Dimensions (mm)



TN models			TN1	TN2	TN3	TN4	TN5	TN6	TN7	TN8
Height	A	mm	1334	1334	1497	1497	1822	1822	2309	2309
Width	B	mm	928	1172	1334	1659	1659	1984	1984	2472
Lenght	C	mm	684	684	765	765	828	828	1172	1172
Weight (base version coil 6R)		kg	190	220	275	320	415	475	630	807
Weight (enhanced version coil 6R)		kg	200	223	283	321	417	502	657	813

## NCD Air handling units



### Aermec

is a company of the Giordano Riello International Group, which participates in the program Eurovent. Products are listed on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



### Features

- 24 sizes of central air handling units with double panelling with panel thickness of 50 mm
- Support structure realised in aluminium alloy sections and a large choice of panels.
- Wide range of sections and components to satisfy all plant engineering requirements
- Double intake centrifugal fans with forward or reverse blades.
- PLUG FAN type fan with Inverter regulation, able to adapt to the most varied system requirements.

#### Main Features

- Structure:
- In aluminium sections with rounded edges both internally and externally allowing greater cleanliness
  - New panelling and gaskets, able to guarantee reduced seepage in compliance with the EN1886 Standard

- Reduction of noise emission thanks to the use of material with high sound-absorption power.
- Small dimensions and contained height.

#### Internal components:

- New high-efficiency heat exchangers with small pressure drops
  - Mixing chamber with three dampers
- The configurations for the mixing chambers with three dampers are the following:
- two upper dampers and an internal one for recirculation;
  - two front dampers and a horizontal one for recirculation (for overlapping control units);
  - two lateral internal dampers and an internal for recirculation (configuration for expulsion and non-ducted fresh air intake)

#### Large availability of filters:

- Filters with large surfaces to reduce the pressure drops and increase the duration

- Cell pre-filters
- Roll filters
- Bag filters
- Absolute filters
- Activated carbon filters
- Germicidal lamp
- New efficient drop eliminator in PVC
- New heat recoverers with high heat exchange

#### Electric components

- Electronic regulation available able to optimise the performance and simplify installation of the control unit itself
- New high performance selection software.

### Accessories

Wide range of accessories among which:

- Technical rooms

#### Accessories for air intake/exhaust sections:

- flange;
- blank panel (to be perforated with care by the customer);
- anti-vibration sheet on the intake/flow vents (with or without damper) with earth cable;
- aluminium grille (for internal dampers only);
- manual command on the dampers;
- proportional servo-control;

- proportional servo-control with spring return;
- pedestrian grill on the floor dampers.

#### Accessories for the fan-motor sections:

- Damper on the flow vent;
- overpressure damper;
- micro switch on the inspection hatch;

#### Accessories common to several sections:

- Spot light with window with 24V bulb (the installer must envision the 24V power supply);

- manometer with dial;
- pressure switch;
- instruments-probes holder GJ 1/4" double sleeve;
- floor reinforced with non-slip sheet steel.

## Technical data

	Air flow rate m <sup>3</sup> /h	Coil section m <sup>2</sup>
NCD 1	1.134	0,13
NCD 2	1.958	0,22
NCD 3	2.390	0,27
NCD 4	3.132	0,35
NCD 5	3.823	0,42
NCD 6	4.307	0,48
NCD 7	5.257	0,58
NCD 8	6.207	0,69
NCD 9	8.019	0,89
NCD 10	9.477	1,05
NCD 11	11.548	1,28
NCD 12	14.213	1,58
NCD 13	16.978	1,89
NCD 14	19.742	2,19
NCD 15	25.761	2,86
NCD 16	30.772	3,42
NCD 17	37.139	4,13
NCD 18	47.187	4,8
NCD 19	49.235	5,47
NCD 20	55.283	6,14
NCD 21	61.331	6,81
NCD 22	67.379	7,49
NCD 23	73.427	8,16
NCD 24	79.475	8,83

The performance refers to an air speed through the coils equal to 2.5 m/s.

## Technical Data

		SEZ B								
SEZ A		734	894	1054	1214	1374	1534	1694	1854	2014
height with Stand	height without Stand	620	780	940	1100	1260	1420	1580	1740	1900
645	525	NCD1 1370-1640 m³/h	NCD1A 1880-2260 m³/h	NCD2 2350-2820 m³/h	NCD3 2870-3450 m³/h	NCD3C 3390-4070 m³/h	NCD4B 3890-4670 m³/h	NCD5B 4380-5250 m³/h	NCD6B 4860-5840 m³/h	NCD6D 5330-6400 m³/h
805	685	NCD1B 1970-2360 m³/h	NCD3A 2720-3260 m³/h	NCD4 3400-4080 m³/h	NCD5 4150-4980 m³/h	NCD6A 4900-5870 m³/h	NCD7A 5620-6740 m³/h	NCD8A 6320-7590 m³/h	NCD8C 7020-8430 m³/h	NCD8F 7700-9240 m³/h
965	845	NCD2A 2580-3090 m³/h	NCD4A 3550-4260 m³/h	NCD6 4440-5330 m³/h	NCD7 5420-6500 m³/h	NCD8 6400-7680 m³/h	NCD8D 7350-8820 m³/h	NCD9 8270-9920 m³/h	NCD9C 9180-11020 m³/h	NCD9F 10070-12090 m³/h
1125	1005	NCD3B 3180-3820 m³/h	NCD5A 4390-5270 m³/h	NCD6E 5490-6580 m³/h	NCD8B 6700-8030 m³/h	NCD8H 7910-9490 m³/h	NCD9A 9080-10890 m³/h	NCD10 10210-12250 m³/h	NCD10C 11340-13610 m³/h	NCD11 12440-14930 m³/h
1285	1165		NCD6C 5220-6270 m³/h	NCD7B 6530-7830 m³/h	NCD8G 7970-9560 m³/h	NCD9E 9410-11290 m³/h	NCD10A 10800-12960 m³/h	NCD10F 12150-14580 m³/h	NCD11A 13500-16200 m³/h	NCD12 14810-17770 m³/h
1445	1325			NCD8E 7570-9090 m³/h	NCD9B 9240-11090 m³/h	NCD10B 10910-13100 m³/h	NCD10G 12530-15040 m³/h	NCD11D 14100-16920 m³/h	NCD12A 15660-18800 m³/h	NCD12C 17180-20610 m³/h
1765	1645				NCD10D 11790-14150 m³/h	NCD11B 13920-16710 m³/h	NCD12B 15990-19190 m³/h	NCD13A 17990-21580 m³/h	NCD13D 19980-23980 m³/h	NCD14B 21920-26300 m³/h
2085	1965						NCD13B 19440-23330 m³/h	NCD14A 21870-26250 m³/h	NCD14E 24300-29160 m³/h	NCD15 26650-31980 m³/h
2405	2285								NCD15D 28620-34350 m³/h	NCD15G 31390-37670 m³/h
2565	2445									NCD16B 33760-40510 m³/h

		SEZ B							
SEZ A		2334	2654	2974	3294	3614	3934	4254	4574
height with Stand	height without Stand	2220	2540	2860	3180	3500	3820	4140	4460
645	525								
805	685	NCD9D 9200-11040 m³/h							
965	845	NCD10E 12030-14440 m³/h	NCD11C 13990-16790 m³/h						
1125	1005	NCD11E 14860-17830 m³/h	NCD12D 17280-20730 m³/h	NCD13C 19700-23640 m³/h					
1285	1165	NCD13 17690-21230 m³/h	NCD14 20570-24680 m³/h	NCD14C 23450-28140 m³/h	NCD15B 26330-31590 m³/h				
1445	1325	NCD13E 20520-24620 m³/h	NCD14D 23860-28630 m³/h	NCD15C 27200-32640 m³/h	NCD15E 30540-36650 m³/h	NCD16A 33880-40660 m³/h			
1765	1645	NCD15A 26180-31410 m³/h	NCD15F 30440-36530 m³/h	NCD16C 34700-41640 m³/h	NCD17A 38970-46760 m³/h	NCD17D 43230-51870 m³/h	NCD18B 47490-56990 m³/h		
2085	1965	NCD16 31840-38200 m³/h	NCD16D 37020-44430 m³/h	NCD17C 42210-50650 m³/h	NCD18C 47390-56870 m³/h	NCD19A 52570-63090 m³/h	NCD20A 57760-69310 m³/h	NCD21A 62940-75530 m³/h	NCD21C 68130-81750 m³/h
2405	2285	NCD17 37500-45000 m³/h	NCD18 43600-52320 m³/h	NCD19 49710-59650 m³/h	NCD20 55810-66980 m³/h	NCD21 61920-74300 m³/h	NCD22 68030-81630 m³/h	NCD23 74130-88960 m³/h	NCD24 80240-96280 m³/h
2565	2445	NCD17B 40330-48390 m³/h	NCD18A 46890-56270 m³/h	NCD19B 53460-64150 m³/h	NCD20B 60030-72030 m³/h	NCD21B 66590-79910 m³/h	NCD22A 73160-87790 m³/h	NCD23A 79730-95670 m³/h	NCD24A 86290-103550 m³/h

The performance refers to an air speed through the coils equal to 2.5 m/s.



	Section A	Section B
NCD 1	645	735
NCD 2	645	1055
NCD 3	645	1215
NCD 4	805	1055
NCD 5	805	1215
NCD 6	965	1055
NCD 7	965	1215
NCD 8	965	1375
NCD 9	965	1695
NCD 10	1.130	1695
NCD 11	1.130	2015
NCD 12	1.285	2015
NCD 13	1.285	2335
NCD 14	1.285	2655
NCD 15	2.085	2015
NCD 16	2.085	2335
NCD 17	2.405	2335
NCD 18	2.405	2655
NCD 19	2.405	2975
NCD 20	2.405	3295
NCD 21	2.405	3615
NCD 22	2.405	3935
NCD 23	2.405	4255
NCD 24	2405	4575

# SPL

025/130

**Swimming Pool Lines**  
**Air handling unit**  
**high efficiency for health centres.**  
**Air flow from 4,000 to 13,000 m<sup>3</sup>/h.**

**Swimming  
Pool Lines**

**HFC**  
 Refrigerant  
**R410A**

**TECHNOLOGY**  
**HIGH  
EFFICIENCY**



The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.

The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption. The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost.

The structure and all the internal components are built to ensure the **maximum resistance to corrosion**.

## Characteristics

### VERSIONS

- 7 sizes available.

### STRUCTURE:

- Anodised aluminium profile with reinforced nylon corner pieces. Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m<sup>3</sup>, fixed without screws but with panel locking profiles, doors with keyless handles. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water. The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

### THERMAL RECOVERY SECTION:

- High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

### REFRIGERANT CIRCUIT:

- Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat

exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure presostats), brazed copper connections, refrigerant charge of environmentally friendly R410A. The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

### FAN SECTIONS:

- Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

### FILTRATION SYSTEMS:

- Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

### HOT WATER HEATING COIL:

- With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the

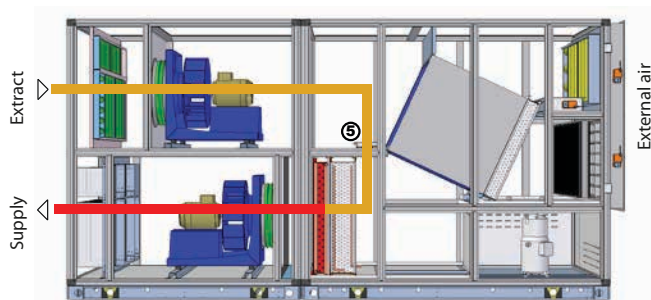
coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

### ELECTRICAL PANEL:

- Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

The principal operation modes of the unit are shown in the example schematics below.  
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

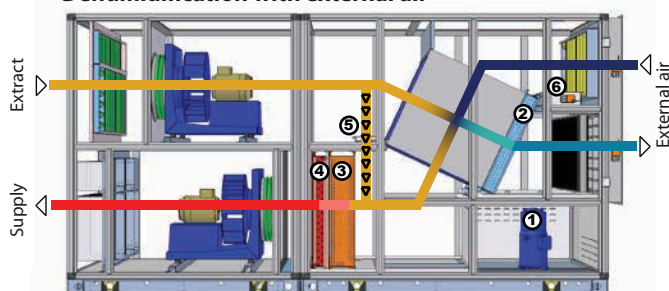
### "Start up" cycle



The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area. The hot water coil is operational. The "start up cycle" is activated for the time necessary to heat up the area.

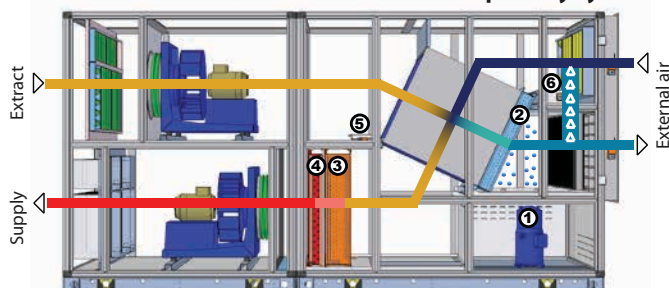
### "Dehumidification" cycle

#### Dehumidification with external air



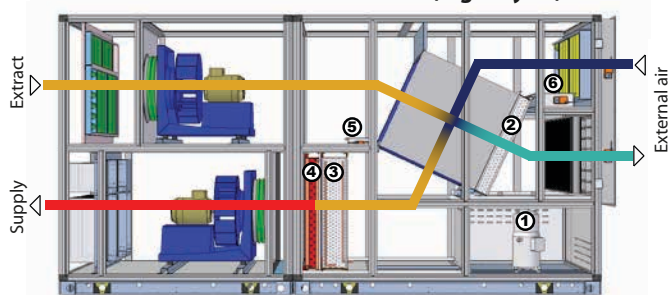
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side. The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

#### Dehumidification with external air and primary cycle



When required the compressor also assists in the dehumidification of the pool area. The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions. As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

#### Dehumidification with external air (night cycle)



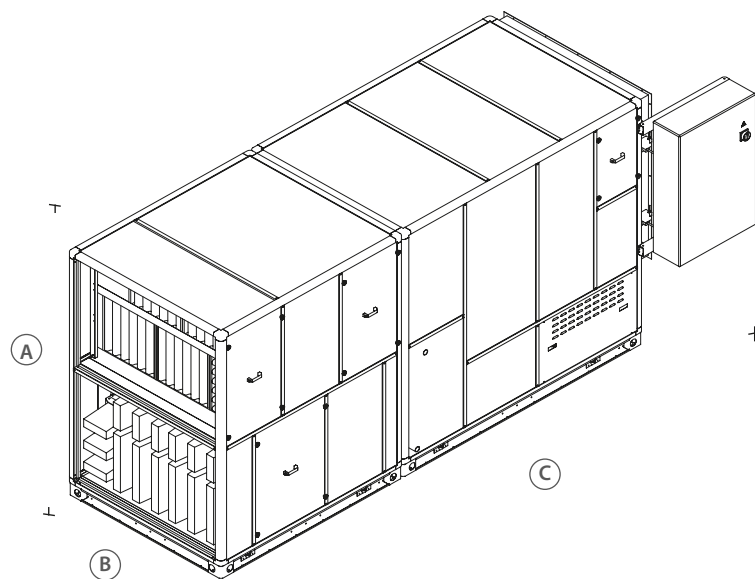
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.



## Technical data

SPL		025	040	060	100	130
Nominal airflow (supply/extract)	m <sup>3</sup> /h	2.500	4.000	6.300	10.000	13.000
Available pressure (supply/extract)	Pa	400	400	400	400	400
Heat recovery capacity recovered <sup>1</sup>	kW	7,9	12,6	20,4	32,0	41,5
Max heat recovery efficiency <sup>1</sup>	%	80,8	79,3	80,1	79,5	79,4
Refrigerant circuit recovered capacity <sup>1</sup>	kW	7,5	10,5	21,3	31,7	45,7
Total recovered capacity <sup>1</sup>	kW	15,4	23,1	41,6	63,7	87,3
Compressor power input <sup>1</sup>	kW	1,3	1,6	3,7	6,0	8,4
COP <sup>1</sup>	-	11,8	14,4	11,2	10,6	10,4
COP <sup>2</sup>	-	3,9	4,0	4,1	4,0	4,1
Total dehumidification capacity <sup>1</sup>	kg/h	15,5	25,2	40,1	63,7	82,7
Supply fan power input	kW	1,6	2,6	3,7	5,9	7,6
Extract fan power input	kW	1,2	1,9	2,7	4,5	5,7
Type / number of compressors	n°	Scroll / 1				
Hot water heating coil (standard)						
Capacity (without recovery active) <sup>1</sup>	kW	26,1	35,4	61,6	95,3	124,5
Water flow rate <sup>3</sup>	l/h	2.250	3.050	5.300	8.200	10.700
Water pressure drop <sup>3</sup>	kPa	23,5	43,7	33,1	48,8	46,3
Plate heat exchanger R410A/non aggressive water (standard)						
Water flow rate nominal <sup>4</sup>	l/h	950	1.120	2.500	3.600	5.400
Pressure drop <sup>4</sup>	kPa	19	19	31	32	33
Plate heat exchanger accessible non aggressive water/pool water (standard)						
Water flow rate nominal pool <sup>5</sup>	l/h	1.200	1.400	3.100	4.500	6.800
Pressure drop pool side <sup>5</sup>	kPa	32,4	34	31,4	33	34,5
Pressure drop intermediate circuit side <sup>5</sup>	kPa	21,2	22,3	20,6	21,6	22,5
Electrical data						
Unit power supply		400 V - 3 ph - 50 Hz				
Maximum total current input supply fan	A	3,5	6,2	11	14,6	15
Maximum total current input extract fan	A	2,6	4,9	6,4	11,3	11,3
Unit maximum current input	A	11,6	17,1	32,4	49,3	61,3
Unit starting current	A	32,1	46,1	91,4	181,9	184,3

- 1 External air 0°C,80% RH; internal air 29°C,60% RH.  
2 Values as per conditions of D.M. 7 april 2008 for heating only operation.  
3 Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.  
4 Water temperature inlet/outlet non aggressive 27/37°C.  
5 Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C  
Preliminary technical data, subject to modification.



SPL			025	040	060	100	130
Height (including base H=120mm)	A	mm	1.765	1.765	2.245	2.405	2.405
Width	B	mm	895	895	1.055	1.375	1.695
Length	C	mm	3.230	3.390	4.190	4.190	4.670
Weight		kg	900	1.000	1.350	2.060	2.600

## SPL 160/250

**Swimming Pool Lines**  
Air handling unit  
high efficiency for health centres,  
Air flow from 16,000 to 25,000 m<sup>3</sup>/h.

Swimming  
Pool Lines

HFC  
Refrigerant  
**R410A**

TECHNOLOGY  
**HIGH  
EFFICIENCY**



The units from the SPL series represent the ideal solution to guarantee the comfort conditions in medium-large spaces such as health centres, spa areas, fitness centres, swimming pools, sports facilities, etc.

The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption. The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost.

The structure and all the internal components are built to ensure the maximum resistance to corrosion.

### Characteristics

#### VERSIONS

- 3 sizes available.

#### STRUCTURE:

- Anodised aluminium profile with reinforced nylon corner pieces. Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m<sup>3</sup>, fixed without screws but with panel locking profiles, doors with keyless handles. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water. The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

#### THERMAL RECOVERY SECTION:

- High efficiency static cross flow double plate heat exchanger in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

#### REFRIGERANT CIRCUIT:

- Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A. The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.

#### FAN SECTIONS:

- Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

#### FILTRATION SYSTEMS:

- Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

#### HOT WATER HEATING COIL:

- Water coil with copper tubes and pre-painted aluminium fins and painted frame to heat the supply air after dehumidification, controlled by

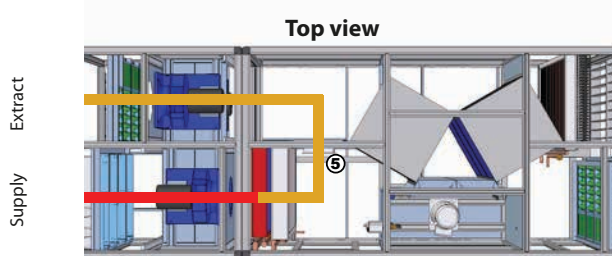
a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

#### ELECTRICAL PANEL:

- Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

The principal operation modes of the unit are shown in the example schematics below.  
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

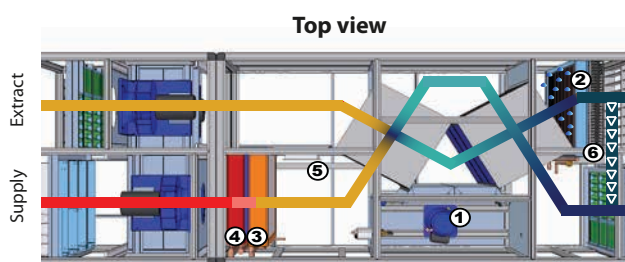
### "Start up" cycle



The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area. The hot water coil is operational. The "start up cycle" is activated for the time necessary to heat up the area

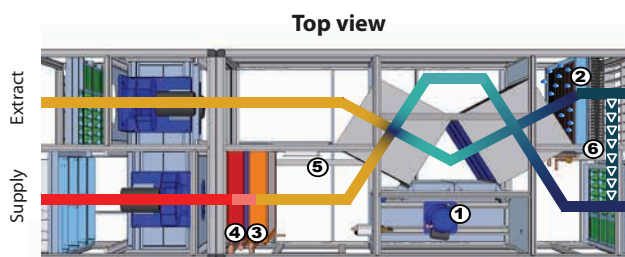
### "Dehumidification" cycle

#### Dehumidification with external air



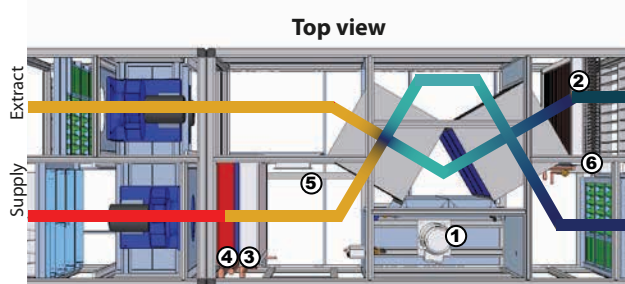
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side. The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

#### Dehumidification with external air and primary cycle



When required the compressor also assists in the dehumidification of the pool area. The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions. As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

#### Dehumidification with external air (night cycle)



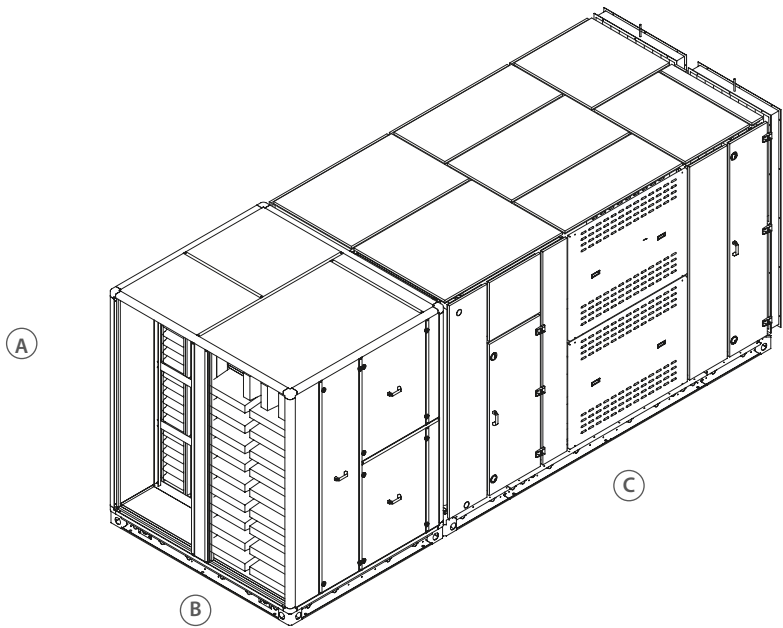
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

## Technical data

SPL		160	200	250
Nominal airflow (supply/extract)	m³/h	16.000	20.000	25.000
Available pressure (supply/extract)	Pa	400	400	400
Heat recovery capacity recovered <sup>1</sup>	kW	59,6	68,6	89,2
Max heat recovery efficiency <sup>1</sup>	%	93	86	89
Refrigerant circuit recovered capacity <sup>1</sup>	kW	46,3	53,6	69,4
Total recovered capacity <sup>1</sup>	kW	105,9	122,2	158,6
Compressor power input <sup>1</sup>	kW	8,5	9,2	12,8
COP <sup>1</sup>	-	12,5	13,3	12,4
COP <sup>2</sup>	-	4,0	3,9	3,9
Total dehumidification capacity <sup>1</sup>	kg/h	102,2	127,6	159,5
Supply fans power input	kW	10,9	13,7	17,7
Extract fans power input	kW	8,3	9,8	12,4
Type / number of compressors	n°	Scroll / 1		
Hot water heating coil (standard)				
Capacity (without recovery active) <sup>1</sup>	kW	131,9	182,7	205,9
Water flow rate <sup>3</sup>	l/h	11.300	15.700	17.700
Water pressure drop <sup>3</sup>	kPa	43,7	37,9	42,2
Plate heat exchanger R410A/non aggressive water (standard)				
Water flow rate nominal <sup>4</sup>	l/h	5.760	6.450	8.260
Pressure drop <sup>4</sup>	kPa	33	33	33
Plate heat exchanger accessible non aggressive water/pool water (standard)				
Water flow rate nominal pool <sup>5</sup>	l/h	7.200	8.100	10.400
Pressure drop pool side <sup>5</sup>	kPa	34,2	34,7	34,2
Pressure drop intermediate circuit side <sup>5</sup>	kPa	22,3	22,7	22,2
Electrical data				
Unit power supply	400 V - 3 ph - 50 Hz			
Maximum total current input supply fans	A	29,2	41	42
Maximum total current input extract fans	A	22	22,6	30
Unit maximum current input	A	86,2	99,6	123
Unit starting current	A	209	223	287

- 1 External air 0°C, 80% RH; internal air 29°C, 60% RH.  
2 Values as per conditions of D.M. 7 april 2008 for heating only operation.  
3 Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.  
4 Water temperature inlet/outlet non aggressive 27/37°C.

- 5 Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C  
Preliminary technical data, subject to modification.



SPL			160	200	250
Height	A	mm	2.085	2.405	2.405
Width	B	mm	2.015	2.175	2.335
Length	C	mm	5.790	5.790	6.430
Weight		kg	2.780	3.250	3.580

# ENERGY

**Air handling unit for outside air with high energy efficiency.**  
Airflow from 4,000 to 25,000 m<sup>3</sup>/h.

**HFC**  
Refrigerant  
**R410A**

**TECHNOLOGY**  
**HIGH EFFICIENCY**



The units of the Energy series represent the maximum expression of technical innovation for the treatment of outside air. The Energy series has been specifically designed to reduce to the minimum the operating energy consumption, which represents around 80% of the entire life cycle cost of an air treatment unit. The double heat recovery system (static and active) and the innovative cooling and adiabatic humidification system, allow **the supply of air at the desired conditions with the minimum energy expenditure. The damper for total bypass allows free-cooling in the intermediate season, exploiting to the maximum the free external thermal contribution.** The Energy series is manufactured in full compliance with the standard EN1886 with regards to mechanical resistance, air leakage, thermal and acoustical insulation of the casing.

## Characteristics

### VERSIONS

- 5 sizes available.

### PLUG AND PLAY:

- The units of the Energy series are delivered ready for use. In particular, the machine is equipped with a complete control system and the refrigerant circuit is completely assembled and tested, minimising the time and cost of installation and start up.

### STRUCTURAL ASSEMBLY:

- In aluminium profile with rounded edges and reinforced nylon corner pieces. The casing is manufactured from sandwich panels of 50 mm thickness, fixed to the frame with an exclusive panel fixing without the use of screws. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.

### MODULATING BYPASS DAMPER:

- In aluminium with opposed aerofoil blades, installed in the extract air flow to permit free-cooling. Additional recirculating damper (only in the Eco version). The accurate manufacturing minimises air leakage.

### PLUG FANS:

- Very high efficiency directly coupled to the motor. Inverter for continuous control of supply and extract air flow.

### FILTRATION SYSTEMS:

- Various types of filters are available (panel and

bag), to satisfy any filtration requirement and ensure compliance with the current air quality standards. Dirty filter pressure switches supplied as standard.

### STATIC HEAT RECOVERY:

- Integrated reversible heat pump. Tandem scroll compressor (single for sizes 040 and 060) supplied with rubber anti-vibration feet; continuous capacity control through an inverter to ensure the maximum energy savings even at part load. Double expansion valve electronically controlled. 4 way refrigerant cycle reversing valve. Coils manufactured with copper tubes and prepainted aluminium fins. Environmentally friendly refrigerant R410A ensures improved energy efficiency for the refrigerant cycle.

### RE-HEAT COIL:

- Water in the Standard version (optional) and Eco version (standard), hot gas in the Dry version (standard).

### COOLING SYSTEM:

- Adiabatic with water spray in the extract air, with self cleaning spray nozzles and high pressure pump module, having the function of maximising the heat exchange in the double heat recovery system.

### WATER HUMIDIFICATION SYSTEM:

- Spray in the supply air. Lower surfaces of the unit equipped with drain panels with central condensate drain to ensure

the continuous drainage of water and avoid stagnation.

### ELECTRICAL PANEL:

- Complete with power and controls unit mounted. Remote panel for the control of all the main functions and display of alarms.

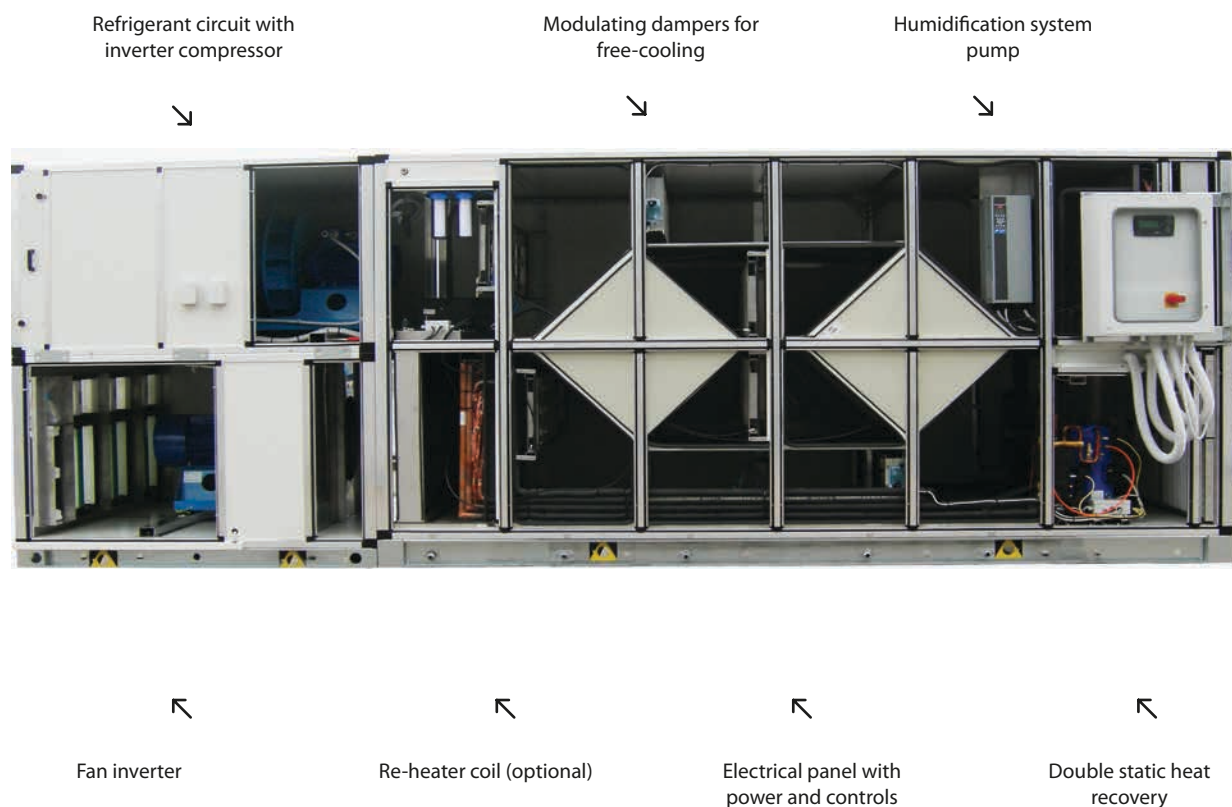
### MICROPROCESSOR CONTROLLER:

- Capable of controlling the various operating modes (control of outside air, control of total air), ensuring the maximum energy saving in each operating condition. RS485 interface supplied as standard (MODBUS protocol) for connection to a supervisory systems and remote control. Manual season change over (summer/winter).

### ON DEMAND:

- Hot water re-heat coil (only Standard version, as standard on Eco version), enthalpy free-cooling (available only with ambient temperature control), bag filters.





VERSION	Adiabatic cooling / humidification	Recirculating damper	Hot gas re-heat	Water re-heat
ENERGY STD	●	-	-	Optional
ENERGY DRY	●	-	●	-
ENERGY ECO	●	●	-	●

## Technical data

ENERGY Dry			040	060	100	160	250
Air flow rate (supply/return)	(nom)	m³/h	4000	6000	10000	16000	25000
	(min)	m³/h	3600	5100	8500	13000	20000
	(max)	m³/h	4800	7200	11500	17600	25000
Cooling Capacity		kW	40	57	99	155	203
Total input power		kW	10,2	14,6	25,7	39,1	56
EER		W/W	3,92	3,90	3,85	3,96	3,63
Heating Capacity		kW	67	88	146	229	313
Total input power		kW	13,5	14,3	22,1	34,7	50,5
COP		W/W	4,96	6,15	6,61	6,60	6,20
<b>Thermodynamic recovery</b>							
Cooling Capacity - max (f.a cooling)		kW	24,4	34,4	63,5	93	114,9
Total input power - max (f.a cooling)		kW	7,1	9,1	17	23,7	30,1
Heating capacity - max. (f.a Heating)		kW	28,5	32,1	54,9	78,6	99,6
Total input power - max (f.a Heating)		kW	10,4	8,7	13,2	18,9	23,8
<b>Static recovery + adiabatic</b>							
Max recovered summer power		kW	15,2	22,7	35,5	61,6	87,9
Sensitive Summer Static Efficiency		%	72	71	69	74	66
Max capacity recovered Winter		kW	38,7	55,9	90,8	150,8	213,4
Static Efficiency Sensitive Winter		%	84	82	80	80	76

ENERGY Eco/Std			040	060	100	160	250
Air flow rate (supply/return)	(nom)	m³/h	4000	6000	10000	16000	25000
	(min)	m³/h	3600	5100	8500	13000	20000
	(max)	m³/h	4800	7200	11500	17600	25000
Cooling Capacity		kW	37	54	95	148	194
Total input power		kW	12,2	16,8	28,8	43,9	62,8
EER		W/W	3,03	3,21	3,30	3,37	3,09
Heating Capacity		kW	60	88	146	229	313
Total input power		kW	8,9	14,3	22,1	34,7	50,5
COP		W/W	6,74	6,15	6,61	6,60	6,20
<b>Thermodynamic recovery</b>							
Cooling Capacity - max (f.a cooling)		kW	22,1	31,3	59,2	87,0	93,5
Total input power - max (f.a cooling)		kW	9,1	11,3	20,1	28,5	36,9
Heating capacity - max. (f.a Heating)		kW	21,0	32,1	54,9	78,6	99,6
Total input power - max (f.a Heating)		kW	5,8	8,7	13,2	18,9	23,8
<b>Static recovery + adiabatic</b>							
Max recovered summer power		kW	15,2	22,7	35,5	61,6	73,8
Sensitive Summer Static Efficiency		%	72	71	69	74	69
Max capacity recovered Winter		kW	38,7	55,9	90,8	150,8	179,6
Static Efficiency Sensitive Winter		%	84	82	80	80	79

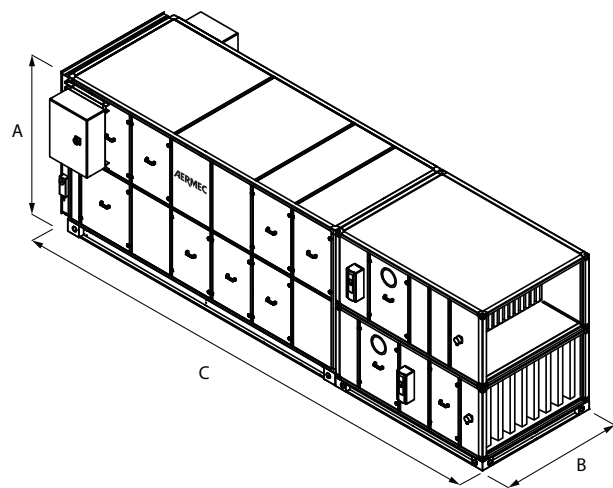
### Cooling Mode

External Air Temperature: 35 °C; RH 40%; Ambient Temperature: 26 °C; Humidity Ambient 50 %

### Heating Mode

External Air Temperature: -10 °C; Humidity External Air 90%; Ambient Temperature: 20 °C; Humidity Ambient 50 %

Dimensional data (mm)



Mod. ENERGY		Vers.	040	060	100	160	250
Height	(mm) A	Alls	1810	1810	2130	2450	2450
Width	(mm) B	Alls	1055	1375	1695	2015	2335
Lenght	(mm) C	Alls	4830	4830	5630	6270	6270
Waeight Standard version	(kg)		1400	1800	2300	2900	3500

## RTX 01/08

**Rooftop**  
**Air/air for external installation**  
**with plug fans and scroll compressor**  
**Cooling capacity 13 - 51kW**  
**Heating capacity 13 - 52kW**

**HFC**  
Refrigerant  
**R410A**



- **FAN TREATMENT SECTION**
- **PLUG FANS COUPLED WITH EC BRUSHLESS MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE-COOLING/ENTHALPIC FREE-COOLING OPTION**
- **FOR MEDIUM DENSITY APPLICATIONS**

### Features

- Independent Roof-Top air-cooled air conditioner to treat, filter and renew air based on the selected configuration. Being fitted to function with 30% external and expelled air (MB4 versions), RTX units are designed for medium density applications like shopping malls, shops, offices and production areas. Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB4 versions, there is thermodynamic recovery of the energy contained in the expelled air, allowing for higher performance and efficiency.

#### Versions

**RTX\_F** cold only  
**RTX\_H** heat pump

#### Configurations

- MB2** single ventilating section for return air and external air
- MB4** double ventilating section for return air, external air and expelled air. Partial free-cooling function (up to 50% of the external air) and standard thermodynamic recovery function.
- MB1** single ventilating section for recirculation only

Each of the different configurations can be further customised thanks to a wide selection of accessories.

- 1 Cooling circuit
- Scroll compressor with high performance and low electric absorption

- Finned pack direct expansion internal and external exchangers.
- Plug type (EC) flow and recovery fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise.
- Axial fan unit for extremely silent functioning positioned on the condensing section.
- G4 air filter installed upstream of the components to ensure low pressure drops.
- Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

## Accessories

- **RS:** RS485 BMS serial card
- **LW:** LonWorks interface card
- **BIP:** Ethernet-pCOWeb interface card (BACNET IP)
- **BAC:** BACnet MS/TP pConet interface card
- **FCT:** Partial Temperature Free-Cooling for MB2, MB4 versions
- **PSTEP:** Constant flow rate adjustment, flow rate steps based on cooling circuit modulation.
- **FT7:** F7 efficiency pocket filters positioned on the supply air flow
- **FT9:** F9 efficiency pocket filters positioned on the supply air flow
- **FTE:** Electronic filters positioned on the supply air flow.
- **PSF4:** Differential pressure switch signalling dirty recovery and renewal filters (if any)
- **BW:** Two-row hot water heating coil.
- **BWV2V:** Two-row hot water heating coil, with 2-way modulating valve
- **BWV3V:** Two-row hot water heating coil, with 3-way modulating valve
- **BE:** 2-stage electric heating coil
- **BPGC:** Hot gas post-heating coil
- **VELC:** Electronic thermostatic valve
- **DCPR:** AC fans with pressure switch device to regulate revolutions based on the condensation and evaporation pressure.
- **AXEC:** Axial fans featuring EC motors with the function of regulating revolutions based on the condensation and evaporation pressure
- **MAN:** High and low pressure gauges
- **CUR:** Humidification control (recovery humidity probe, flow humidity limit probe, ON/OFF contact and modulating analogue output)
- **DP:** Dehumidification (recovery humidity probe) and post-heating (if any) control
- **SCM:** modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present)
- **SCMRM:** Modulating servo-controls with spring return
- **CA:** Waterproof covers on external air intake
- **GP:** External coil protection grid
- **VT:** anti-vibration mounts
- **SCO2:** CO<sub>2</sub> probe (not available on MB1 model)
- **SVOC:** VOC Probe (not available on MB1 model)
- **STA:** Room temperature probe
- **SUA:** Relative humidity probe
- **RF:** Smoke detector
- **RFC:** smoke detector and damper management
- **PRT1:** Wall/recessed (up to 50 m) remote control panel
- **PRT2:** Wall/recessed (up to 200 m) remote control panel

**NOTE: for more details on accessories and equipment, please refer to the technical manual**

## Technological functions and advantages

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

- **EXTREMELY HIGH-EFFICIENCY VENTILATION** As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.

Both in flow and in recovery (if any), EC brushless motor plug fans were used, which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow adjustment and resulting in compactness, versatility and easy maintenance. Special adaptive logic allows you to adjust

the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.

Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction.

As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

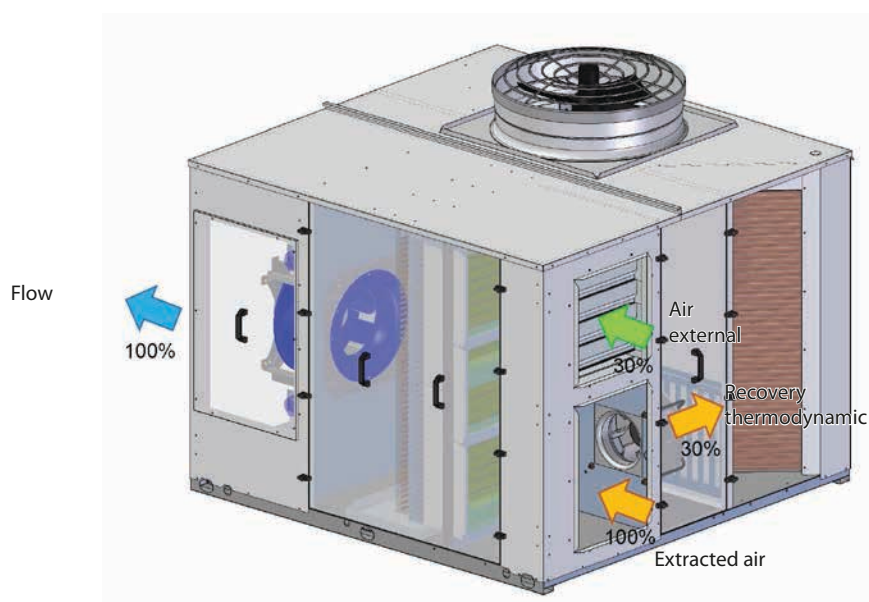
- **AIR QUALITY IN THE ROOM** Naturally, we also paid special attention to the quality of the air in the room, a task entrusted to the standard G4 efficiency filters. F7 and F9 or electronic H10 filters are also optionally available on the fresh air flow.

- **ACTIVE THERMODYNAMIC RECOVERY** In

the MB4 configurations, the units have a thermodynamic recovery function to recover the energy contained in the exhaust air, causing the expelled air flow to hit the external finned pack exchanger, allowing for higher performance and efficiency.

Obviously, all of these technological advantages are controlled by cutting edge thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

**MB4 configuration with double ventilating section for return air, external air and expelled air. Standard free-cooling and thermodynamic heat recovery function.**



## Technical data

Mod. RTX (vers. MB1)			01	02	03	04	05	06	07	08
Cooling capacity	(1)	kW	12.3	15.3	19.6	22.2	28.1	32.0	42.7	48.1
Sensitive cooling capacity		kW	8.7	10.6	13.8	15.3	19.4	22.1	29.3	32.7
Compressor input power		kW	2.7	3.8	4.8	5.8	6.7	8.9	10.1	12.0
EER		W/W	4.56	4.03	4.08	3.83	4.19	3.60	4.23	4.01
Cooling capacity	(2)	kW	12.3	15.3	19.6	22.2	28.1	32.0	42.7	48.1
Sensitive cooling capacity		kW	8.7	10.6	13.8	15.3	19.4	22.1	29.3	32.7
Compressor input power		kW	2.7	3.8	4.8	5.8	6.7	8.9	10.1	12.0
EER		W/W	4.56	4.03	4.08	3.83	4.19	3.60	4.23	4.01
Heating capacity	(3)	kW	12.5	15.7	20.2	23.3	29.1	33.8	44.3	50.4
Compressor input power		kW	2.7	3.6	4.3	5.0	5.9	7.6	9.2	10.5
COP		W/W	4.63	4.36	4.70	4.66	4.93	4.45	4.82	4.80

### Cooling (performance is the same also for the cold only versions)

(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%;

(2) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 26°C w.b.; U.R. 50%

### Heating

(3) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.

Mod. RTX (standard MB2 vers.)			01	02	03	04	05	06	07	08
Cooling capacity	(1)	kW	12.9	16.1	20.6	23.2	29.4	33.5	44.8	50.4
Sensitive cooling capacity		kW	9.1	11.2	14.5	16.1	20.5	23.2	30.7	34.2
Compressor input power		kW	2.8	3.8	4.8	5.9	6.8	9.0	10.2	12.2
EER		W/W	4.61	4.24	4.29	3.93	4.32	3.72	4.39	4.13
Cooling capacity	(2)	kW	13.4	16.6	21.3	23.9	30.3	34.4	46.2	51.8
Sensitive cooling capacity		kW	8.8	10.8	14.0	15.5	19.7	22.3	29.7	33.3
Compressor input power		kW	2.8	3.8	4.8	5.9	6.8	9.1	10.3	12.3
EER		W/W	4.79	4.37	4.44	4.05	4.46	3.78	4.49	4.21
Heating capacity	(3)	kW	12.8	16.0	20.6	23.7	29.4	34.2	45.2	51.0
Compressor input power		kW	2.50	3.30	3.90	4.60	5.40	7.00	8.60	9.80
COP		W/W	5.12	4.85	5.28	5.15	5.44	4.89	5.26	5.20

### Cooling (performance is the same also for the cold only versions)

(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%; Functioning with 30% external air

(2) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 26°C w.b.; U.R. 50%; Functioning with 30% external air

### Heating

(3) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.; Functioning with 30% external air

Mod. RTX (vers. MB4 dynamic)			01	02	03	04	05	06	07	08
Cooling capacity	(1)	kW	13.0	16.2	20.8	23.5	29.7	33.8	45.2	50.8
Sensitive cooling capacity		kW	9.2	11.2	14.6	16.2	20.5	23.3	30.8	34.3
Compressor input power		kW	2.7	3.8	4.7	5.7	6.6	8.7	10.0	11.9
EER		W/W	4.81	4.26	4.43	4.12	4.50	3.89	4.52	4.27
Cooling capacity	(2)	kW	13.5	16.7	21.5	24.2	30.5	34.8	46.6	52.3
Sensitive cooling capacity		kW	8.9	10.8	14.2	15.7	19.8	22.4	29.8	33.3
Compressor input power		kW	2.7	3.8	4.7	5.8	6.7	8.8	10.1	12.0
EER		W/W	5.00	4.39	4.57	4.17	4.55	3.95	4.61	4.36
Heating capacity	(3)	kW	13.1	16.5	21.3	24.6	30.4	35.5	46.6	52.9
Compressor input power		kW	2.50	3.30	4.00	4.70	5.50	7.10	8.70	10.00
COP		W/W	5.24	5.00	5.33	5.23	5.53	5.00	5.36	5.29

### Cooling (performance is the same also for the cold only versions)

(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%; Functioning with 30% external air

(2) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 26°C w.b.; U.R. 50%; Functioning with 30% external air

### Heating

(3) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.; Functioning with 30% external air

## Technical data

GENERAL DATA			01	02	03	04	05	06	07	08
Compressors										
Compressors	type		scroll							
	n°		1	1	1	1	1	1	1	1
Circuits	n°		1	1	1	1	1	1	1	1
Partialisation steps	%		1	1	1	1	1	1	1	1
Refrigerant gas	type		R410A							
Fans										
External fans	type		AC axial							
	n°		1	1	1	1	1	1	1	1
Internal flow fans	type		RAD EC							
	n°		1	1	1	1	1	1	1	1
	Ø mm		355	355	355	400	400	450	450	500
Expulsion fans (MB4)	type		RAD EC							
	n°		1	1	1	1	1	1	1	1
	Ø mm		250	250	280	280	355	355	400	400
Air flow rate	min	m³/h	1800	1800	2700	2700	4000	4000	6500	6500
	nom	m³/h	2000	2700	3500	4000	5200	6500	8000	9500
	max	m³/h	2900	2900	4100	4100	6900	6900	10100	10100
Flow available static pressure	max (4)	Pa	760	597	473	561	424	570	634	681
Sound power		dB(A)	71	71	71	72	77	74	80	81
Sound Pressure		dB(A)	63	63	63	64	69	66	72	73
Electric power supply		V/ph/Hz	400V / 3Ph+N / 50Hz				400V / 3Ph / 50Hz			

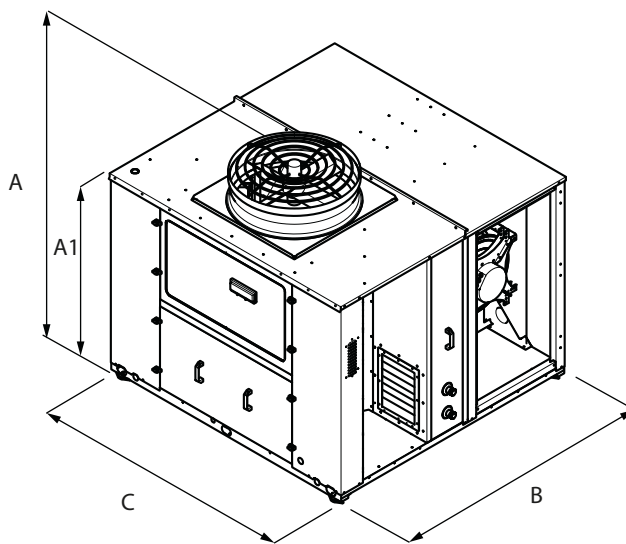
(4) At nominal/maximum flow rate, new clean G4 filter

### Sound Pressure

Sound pressure measured in free field (1m, Q=2) away from the outer surface of the ducted unit, Available static pressure 50Pa. (UNI EN ISO 9614-2)

**Note:** For further information, refer to the technical documentation available at [www.aermec.com](http://www.aermec.com)

## Dimensional data



Mod. RTX		Vers.	01	02	03	04	05	06	07	08	
Height	(mm)	A	All	1150	1150	1450	1450	1670	1670	1780	1780
Total height	(mm)	A1	All	910	910	1210	1210	1410	1410	1510	1510
Length	(mm)	B	All	1460	1460	1460	1460	1910	1910	1910	1910
Width	(mm)	C	All	1560	1560	1560	1560	1860	1860	2310	2310
Weight	(kg)		MB2	305	305	345	345	535	535	615	615
			MB4	315	315	365	365	560	560	645	645



# RTX

## 09/16

**Roof-top  
Air/Air for external installation  
with plug fans and scroll compressors  
Cooling capacities 51÷132kW  
Heating capacities 50÷134kW**

**HFC**  
Refrigerant  
**R410A**



- **HANDLING SECTION WITH  
PLUG FAN COUPLED WITH BRUSHLESS EC MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE-COOLING/ENTHALPIC FREE-COOLING OPTION**
- **FOR MEDIUM CROWDING APPLICATIONS**

## Features

- Independent Roof-top type air cooled air conditioner, for treatment, filtration and renewal of the air, based on the chosen configuration. RTX units are designed for medium crowding applications, like shopping malls, shops, offices, production areas being designed for operation with 30% external and expelled air (version MB3). The unit based on the version and selected accessories allows the management of the free-cooling operation, and can be equipped with a recuperator to recover the energy contained in the exhaust air allowing higher performances and efficiencies.

### Versions

**RTX\_F** cooling only version  
**RTX\_H** heat pump version

### Configurations

- MB2** with mixing chambers and two dampers
  - MB3** with mixing chamber with three dampers return fan and heat recovery from expelled air
  - MB1** recirculation only
- Each of the different configuration can be further customized with a wide choice of accessories.
- 1 cooling circuit
  - High efficiency scroll compressors (tandem UNEVEN) and low power consumption
  - Internal and external direct expansion finned heat exchangers
  - Supply and return fans (if present), of plug fan type (EC). The impellers are so oriented to ensure that the air flow passes through the internal components,

with the minimum noise.

- Group of axial fans for extremely silent operation placed on the condensing section with standard condensation electronic control.
- G4 air filter on the flow of outside air and on the recovery, are installed upstream of the components, to ensure low pressure drops.
- Microprocessor control can handle the different modes of operation ensuring maximum energy savings in any conditions. Interfaces for connections to BMS and optional remote control available.

## Accessories and fittings

- **SSV:** Supervision system.
- **RS:** Serial card BMS RS485
- **LW:** Interface card LonWorks
- **BIP:** Interface card Ethernet-pCOWeb (BACNET IP)
- **BAC:** Interface card BACnet MS/TP pCOnet
- **FCT:** Temperature Free-cooling
- **FTH:** Enthalpic Free-cooling
- **PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
- **FT7:** Pocket filters F7 efficiency placed on the flow of supply air
- **FT9:** Pocket filters F9 efficiency placed on the flow of supply air.
- **H10:** Electronic filters placed on the flow of supply air.
- **PSF:** Differential pressure switch signaling fouled filters of recovery, renewal and discharge (if present)
- **PSF2:** Differential pressure switch signaling fouled filters, renewal and supply.
- **Gx:** heating module with gas burner
- **BW:** 2-rows-heating coil with hot water
- **BWV2V:** 2-rows -heating coil with hot water, with 2-way modulating valve
- **BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve
- **BE:** Electric heating coil 2 stages (**not available with hot air generator**)
- **BEM:** Modulating electric heating coil (**not available with hot air generator**)
- **BPGC:** After heating coil with hot gas .
- **DCPR:** AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.
- **AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation
- **MAN:** High and low pressure gauges
- **U:** Installed steam ramp
- **UP:** Immersed electrode producer standard supplied and installed steam ramp
- **CUR:** Humidification control (humidity probe in recovery, limit humidity probe in supply, contact ON/OFF and modulating analog output)
- **DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present)
- **SCO2:** Probe CO<sub>2</sub> (**not available on MB1 FITTINGS**)
- **SVOC:** Probe VOC (**not available on MB1 FITTINGS**)
- **STA:** Room temperature probe
- **SUA:** Room humidity probe
- **RF:** Smoke detector
- **RFC:** Smoke detector and recirculation damper closure management and external air intake
- **PR1:** Remote control panel
- **SCM:** Modulating servo-controls (standard supplied on the MB3 equipment or if present FCT/FCH)
- **SCMRM:** Modulating Servo-control with spring return
- **CA:** Waterproof headphones on external air intake
- **CF:** Flue pipe (only on version with gas burner module)
- **GP:** Protection grille for external coils
- **VT:** antivibration mounts
- **MSSM:** Delivery silencers forms (only for rear air delivery)
- **MSSR:** Recovery silencers forms (only for rear air delivery)

**NOTE for more details on accessories and equipment, please refer to the technical handbook**

## Features and technological advantages

RTX units have been designed with the aim of reducing energy consumption that dictated the result of technological choices present on the unit that we briefly present.

- **HIGH EFFICIENCY VENTILATION**  
Ventilation is one of the major factors of power consumption; for this reason particular attention has been given to the study and the construction of the ventilation system.

They have been used in both supply and recovery (if present), **fans or plug fans with EC brushless motors** which enables high performances, and low power consumption, also compared to conventional centrifugal fans, they have no belts or pulleys allowing easy flow regulation, compactness, versatility and ease of maintenance.

A particular adaptive logic allows to adjust the air flow to the actual demand of the system with more consequent advantages in terms of reduction of consumption.

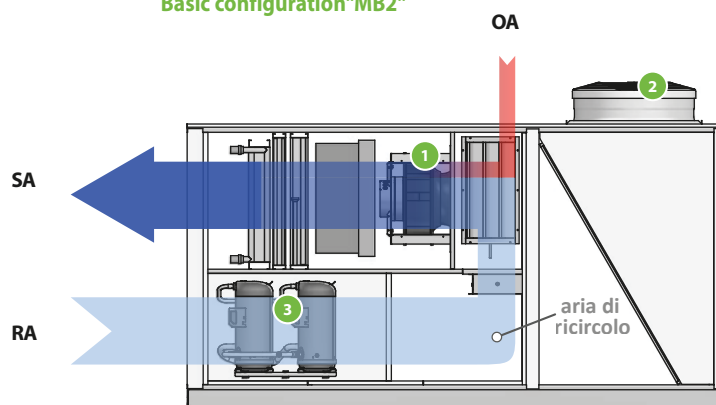
Axial fans for the external section of the unit are of helical type

As an option, the motors can be electronically controlled (EC) for the reduction in consumption of the condenser section.

- **MAXIMUM SEASONAL EFFICIENCY**  
To improve the efficiency of the cooling circuit, we have used scroll tandem compressors with different power between them (compressors UNEVEN except for sizes 09 and 14). This feature allows a reduction of consumptions and a better adaptability to the demands of the system, especially in the operation at partial loads, ensuring higher seasonal efficiency.
- **AIR QUALITY IN THE ROOM**  
Particular attention has been given to the quality of air naturally in the room, entrusted to the standard filters with G4 efficiency on the flow of outside air, also available on the recovery (optional) for process applications. They are also available as (optional) compact filters F7 and F9 or electronic H10 flow of fresh air.
- **ACTIVE THERMODYNAMIC RECOVERY**  
In the "MB3" setting there is also a thermodynamic recovery for the recovery of energy contained in expelled air, in such a way that the expelled air flow invests the external finned heat exchanger, allowing higher performances and efficiencies.

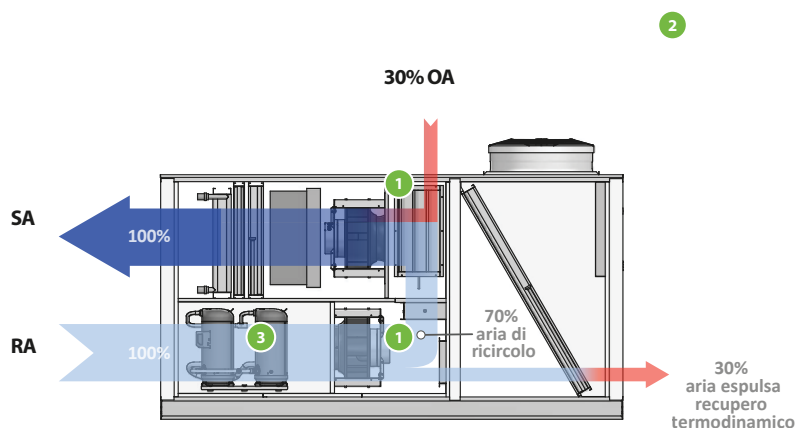
Of course all these technological advantages are controlled by a temperature control of the latest generation, able to handle the different modes of operation; ensuring maximum energy savings in all operating conditions by means of special software.

Basic configuration "MB2"



- ① Plug fan supply only
  - ② Axial fans
  - ③ Tandem scroll compressors
- SA air supply  
RA extracted air  
OA external air

Configuration with thermodynamic recovery "MB3"



- ① Plugfan supply and recovery
- ② Axial fans
- ③ Tandem scroll compressor

## Technical data

Mod. RTX cooling only (standard version MB2)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	51,6	62,0	70,4	84,1	97,3	107,6	118,6	129,9
Sensitive cooling capacity		kW	38,6	44,4	49,7	60,6	68,3	78,5	85,2	91,2
Compressor input power		kW	11,2	14,9	17,4	18,4	22,2	24,5	28,9	34,3
EER		W/W	4,6	4,2	4,0	4,6	4,4	4,4	4,1	3,8
Cooling capacity	(2)	kW	53,2	63,8	72,5	86,6	100,1	110,6	122,0	133,6
Sensitive cooling capacity		kW	37,3	42,9	48,1	58,6	65,9	75,9	81,5	88,6
Compressor input power		kW	11,3	15,0	17,5	18,5	22,4	24,8	29,2	34,6
EER		W/W	4,7	4,3	4,1	4,7	4,5	4,5	4,2	3,9

Mod. RTX cooling only (MB3 dynamic version )			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	52,2	62,6	71,3	85	98,4	108,9	120,2	131,9
Sensitive cooling capacity		kW	38,9	44,4	50,1	61,2	69,1	78,8	85,7	92
Compressor input power		kW	11	14,5	16,9	18	21,6	23,9	28,1	33,2
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00
Cooling capacity	(2)	kW	53,8	64,5	73,5	87,6	101,3	112	123,7	135,7
Sensitive cooling capacity		kW	37,4	43	48,4	59,2	66,7	76,1	82,7	88,6
Compressor input power		kW	11,1	14,6	17	18,1	21,8	24,1	28,4	33,5
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00

### Cooling

(1) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 24°C b.u. (EN14511); Operating with 30% external and expelled air

(2) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 26°C b.u.; Operating with 30% external and expelled air

RTX Heat pump version (standard version MB2)			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	51,6	62,0	70,4	84,1	97,3	107,6	118,6	129,9
Sensitive cooling capacity		kW	38,6	44,4	49,7	60,6	68,3	78,5	85,2	91,2
Compressor input power		kW	11,2	14,9	17,4	18,4	22,2	24,5	28,9	34,3
EER		W/W	4,6	4,2	4,0	4,6	4,4	4,4	4,1	3,8
Cooling capacity	(2)	kW	53,2	63,8	72,5	86,6	100,1	110,6	122,0	133,6
Sensitive cooling capacity		kW	37,3	42,9	48,1	58,6	65,9	75,9	81,5	88,6
Compressor input power		kW	11,3	15,0	17,5	18,5	22,4	24,8	29,2	34,6
EER		W/W	4,7	4,3	4,1	4,7	4,5	4,5	4,2	3,9
Heating power	(3)	kW	50,0	61,4	69,9	81,7	94,7	103,2	114,7	127,5
Compressor input power		kW	8,7	12	13,6	15	17,3	18,5	21,4	24,9
COP		W/W	5,70	5,10	5,10	5,40	5,50	5,60	5,40	5,10

Mod. RTX Heat pump (MB3 dynamic version )			09	10	11	12	13	14	15	16
Cooling capacity	(1)	kW	52,2	62,6	71,3	85	98,4	108,9	120,2	131,9
Sensitive cooling capacity		kW	38,9	44,4	50,1	61,2	69,1	78,8	85,7	92
Compressor input power		kW	11	14,5	16,9	18	21,6	23,9	28,1	33,2
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00
Cooling capacity	(2)	kW	53,8	64,5	73,5	87,6	101,3	112	123,7	135,7
Sensitive cooling capacity		kW	37,4	43	48,4	59,2	66,7	76,1	82,7	88,6
Compressor input power		kW	11,1	14,6	17	18,1	21,8	24,1	28,4	33,5
EER		W/W	4,80	4,40	4,30	4,80	4,60	4,60	4,40	4,00
Heating power	(3)	kW	51,5	63,5	73,0	84,6	98,5	107,6	120,1	133,9
Compressor input power		kW	8,8	12,2	13,8	15,2	17,7	18,8	21,9	25,6
COP		W/W	5,80	5,20	5,30	5,60	5,60	5,70	5,50	5,20

### Cooling

(1) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 24°C b.u. (EN14511); Operating with 30% external and expelled air

(2) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 26°C b.u.; Operating with 30% external and expelled air

### Heating

(3) Internal temperature 20°C b.s., 15°C b.u.; External temperature 7°C b.s. 6°C b.u. (EN14511); Operating with 30% external and expelled air

## Technical data

GENERAL DATA			09	10	11	12	13	14	15	16
<b>Compressors</b>										
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	2	2	2	2	2	2	2	2
Circuits		n°	1	1	1	1	1	1	1	1
Capacity steps	(3)	%	2	3	3	3	3	2	3	3
Refrigerant gas		type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
<b>Fans</b>										
External fans		type	axial AC	axial AC	axial AC	axial AC	axial AC	axial AC	axial AC	axial AC
		n°	2	2	2	2	2	2	2	2
Fans of internal flows		type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
		n°	1	1	1	1	2	2	2	2
		Ø mm	500	560	630	630	500	560	560	560
Fans of internal recovery	(4)	MB3 type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
	(4)	MB3 n°	1	1	1	1	2	2	2	2
	(4)	MB3 Ø mm	500	500	500	450	450	500	500	500
Air flow of inside fan	nom/max	m³/h	9.500	11.000	13.000	15.500	18.000	20.000	22.000	24.000
	min	m³/h	6.650	7.700	9.100	10.850	12.600	14.000	15.400	16.800
Available static pressure (flow)	(5)	Pa	700	544	567	460	733	604	528	751
Available static pressure (recovery)	(5)	Pa	194	207	228	205	222	226	240	255
<b>Sound data</b>										
Sound pressure		dB(A)	70	69	72	75	76	76	78	80
Sound power		dB(A)	78	77	80	83	84	84	86	88
Power supply		V/ph/Hz	400V/3/50Hz							

(3) Sizes 09-14 don't have UNEVEN compressors

(4) Not present in configurations **MB2** and **MB1**

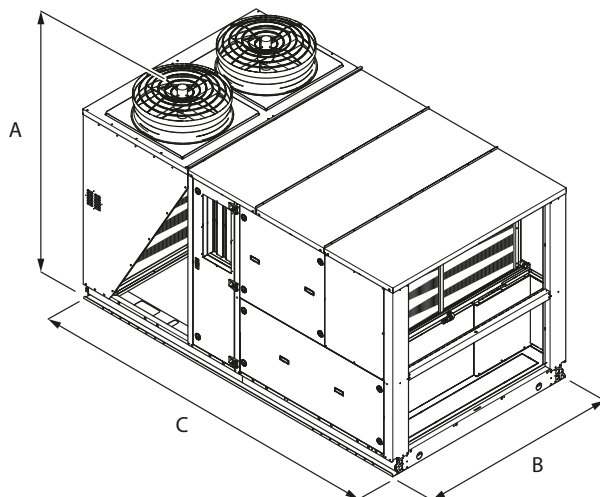
(5) **At the nominal/maximum capacity**, G4 filter medium fouling

### Sound pressure

Sound pressure measured in free field (1m, Q=2) away from the outer surface of the ducted unit, Available static pressure 300Pa at nominal flow (in accordance with the UNI EN ISO 3744).

**Note: For more informations please refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**

## Dimensional data(mm)



Mod. RTX		Vers.	09	10	11	12	13	14	15	16
Height	(mm)	A	All	2061	2061	2061	2373	2373	2440	2440
Width	(mm)	B	All	1900	1900	1900	2100	2100	2200	2200
Depth	(mm)	C		3400	3400	3400	3400	3400	4000	4000
Empty weight	(kg)	MB2	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.
	(kg)	MB3	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.

c.s. Please contact head office

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## RTX 17/23

**Rooftop**  
**Air/air for external installation**  
**with plug fans and scroll compressors**  
**Cooling capacity 152÷315kW**  
**Heating capacity 153÷311kW**

HFC  
Refrigerant  
**R410A**



- **FAN TREATMENT SECTION**
- **PLUG FANS COUPLED WITH EC BRUSHLESS MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE-COOLING/ENTHALPIC FREE-COOLING OPTION**
- **FOR MEDIUM DENSITY APPLICATIONS**

### Features

- Independent Roof-Top air-cooled air conditioner to treat, filter and renew air based on the selected configuration. Being fitted to function with 30% external and expelled air (MB3 and MB4 versions), RTX units are designed for medium density applications like shopping malls, shops, offices and production areas. Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB3 and MB4 versions, there is thermodynamic recovery of the energy contained in the expelled air, allowing for higher performance and efficiency.

#### Versions

**RTX\_F** cold only  
**RTX\_H** heat pump

#### Configurations

- MB2** single ventilating section for return air and external air
- MB3** double ventilating section for return air, external air and expelled air. Total free-cooling function (with 100% of external air) and standard thermodynamic recovery function.
- MB4** double ventilating section for return air, external air and expelled air. Partial free-cooling function (up to 50% of the external air) and standard thermodynamic recovery function.
- MB1** single ventilating section for recirculation only

Each of the different configurations can be further customised thanks to a wide selection of accessories.

- 2 cooling circuits
- High performance, low electrical consumption UNEVEN scroll tandem compressors
- Finned pack direct expansion internal and

external exchangers.

- Plug type (EC) flow and recovery fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise.
- Axial fan unit for extremely silent functioning positioned on the condensing section.
- G4 air filter installed upstream of the components to ensure low pressure drops.
- Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

## Accessories

- **SSV:** Supervision system.
- **RS:** RS485 BMS serial card
- **LW:** LonWorks interface card
- **BIP:** Ethernet-pCOWeb interface card (BACNET IP)
- **BAC:** BACnet MS/TP pCOnet interface card
- **FCT:** Partial Temperature Free-Cooling for MB2, MB4 versions
- **PSTEP:** Constant flow rate adjustment, flow rate steps based on cooling circuit modulation.
- **FT7:** F7 efficiency pocket filters positioned on the supply air flow
- **FT9:** F9 efficiency pocket filters positioned on the supply air flow
- **FTE:** Electronic filters positioned on the supply air flow.
- **PSF4:** Differential pressure switch signalling dirty recovery and renewal filters (if any)
- **Gx:** Heating module with gas burner
- **BW:** Two-row hot water heating coil.
- **BWV2V:** Two-row hot water heating coil, with 2-way modulating valve
- **BWV3V:** Two-row hot water heating coil, with 3-way modulating valve
- **BE:** Two-stage electric heating coil (**not available with hot air generator**)
- **BEM:** Modulating electric heating coil (**not available with hot air generator**)
- **DCPR:** AC fans with pressure switch device to regulate revolutions based on the condensation and evaporation pressure.
- **AXEC:** Axial fans featuring EC motors with the function of regulating revolutions based on the condensation and evaporation pressure
- **MAN:** High and low pressure gauges
- **CUR:** Humidification control (recovery humidity probe, flow humidity limit probe, ON/OFF contact and modulating analogue output)
- **DP:** Dehumidification (recovery humidity probe) and post-heating (if any) control
- **SCO2:** CO<sub>2</sub> probe (**not available on MB1 model**)
- **SVOC:** VOC Probe (**not available on MB1 model**)
- **STA:** Room temperature probe
- **SUA:** Relative humidity probe
- **RF:** Smoke detector
- **RFC:** smoke detector and damper management
- **PR1:** Remote control panel
- **SCM:** modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present)
- **SCMRM:** Modulating servo-controls with spring return
- **VRC:** Condensate drip tray with electric heater (only available on heat pump versions)
- **CA:** Waterproof covers on external air intake
- **CF:** Flue pipe (only on versions with gas burner modules)
- **GP:** External coil protection grid
- **VT:** anti-vibration mounts

**NOTE: for more details on accessories and equipment, please refer to the technical manual**

## Technological functions and advantages

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

- **EXTREMELY HIGH-EFFICIENCY VENTILATION** As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system. Both in flow and in recovery (if any), EC brushless motor plug fans were used, which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow adjustment and resulting in compactness, versatility and easy maintenance. Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction. Axial fans for the external section of the unit

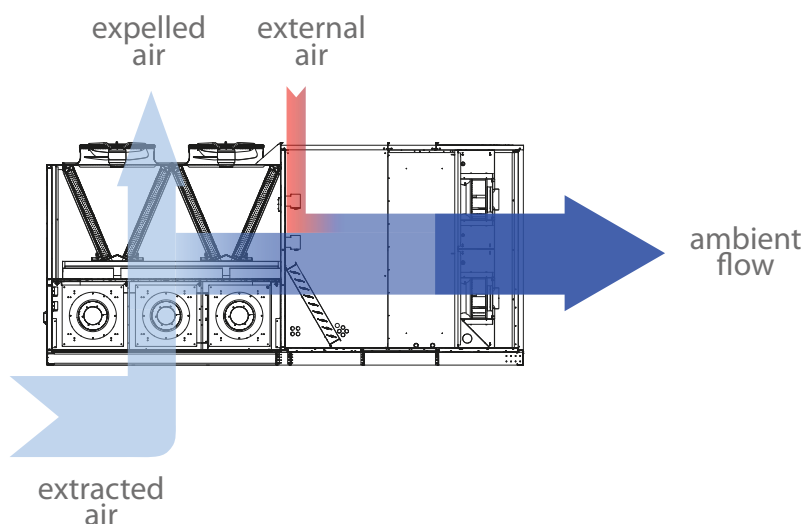
are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

- **MAXIMUM SEASONAL EFFICIENCY** To improve cooling circuit efficiency, we used scroll tandem compressors with different power between them (UNEVEN compressors on all sizes). This detail allows for consumption reduction and improved adaptability to system demands, especially in operation at partial loads, ensuring higher seasonal efficiency.
- **AIR QUALITY IN THE ROOM** Naturally, we also paid special attention to the quality of the air in the room, a task entrusted to the standard G4 efficiency filters. Compact F7 and F9 or electronic H10 filters

are also optionally available on the fresh air flow.

- **ACTIVE THERMODYNAMIC RECOVERY** In the MB3 and MB4 configurations, the units have a thermodynamic recovery function to recover the energy contained in the exhaust air, causing the expelled air flow to hit the external finned pack exchanger, allowing for higher performance and efficiency. Obviously, all of these technological advantages are controlled by cutting edge thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

**MB3 configuration with double ventilating section for return air, external air and expelled air. Total free-cooling function (with 100% of external air) and standard thermodynamic recovery function.**





## Technical data

Mod. RTX (vers. MB1)			17	18	19	20	21	22	23
Cooling capacity	(1)	kW	152	170	192	213	232	246	289
Sensitive cooling capacity		kW	112	124	137	150	168	179	201
Compressor input power		kW	33,0	37,4	42,6	50,7	56,3	61,5	67,9
EER		W/W	4,60	4,54	4,50	4,21	4,12	4,00	4,26
Cooling capacity	(2)	kW	152	170	192	213	232	246	289
Sensitive cooling capacity		kW	112	124	137	150	168	179	201
Compressor input power		kW	33,0	37,4	42,6	50,7	56,3	61,5	67,9
EER		W/W	4,60	4,54	4,50	4,21	4,12	4,00	4,26
Heating capacity	(3)	kW	153	171	193	216	231	246	296
Compressor input power		kW	30,4	34,0	37,5	43,8	46,0	49,2	61,6
COP		W/W	5,02	5,02	5,14	4,94	5,02	5,00	4,81

### Cooling (performance is the same also for the cold only versions)

(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b. (EN14511); U.R. 40%;

(2) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 26°C w.b.; U.R. 50%

### Heating

(3) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b. (EN14511)

Mod. RTX (standard MB2 vers.)			17	18	19	20	21	22	23
Cooling capacity	(1)	kW	159	178	201	223	242	257	303
Sensitive cooling capacity		kW	119	130	144	157	176	187	211
Compressor input power		kW	33,3	37,8	43,2	51,5	57,4	62,6	68,8
EER		W/W	4,78	4,72	4,65	4,34	4,22	4,11	4,40
Cooling capacity	(2)	kW	164	184	207	230	250	265	312
Sensitive cooling capacity		kW	114	125	138	152	171	180	203
Compressor input power		kW	33,5	38,0	43,5	52,0	57,8	63,0	69,4
EER		W/W	4,90	4,84	4,74	4,43	4,32	4,20	4,50
Heating capacity	(3)	kW	155	174	195	219	234	248	301
Compressor input power		kW	28,1	31,5	34,6	40,5	42,6	45,3	57,1
COP		W/W	5,52	5,52	5,65	5,43	5,49	5,47	5,27

### Cooling (performance is the same also for the cold only versions)

(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b. (EN14511); Functioning with 30% external air

(2) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 26°C w.b.; Functioning with 30% external air

### Heating

(3) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b. (EN14511); Functioning with 30% external air

Mod. RTX (vers. MB3 and MB4 dynamic)			17	18	19	20	21	22	23
Cooling capacity	(1)	kW	160	180	202	226	245	261	305
Sensitive cooling capacity		kW	118	130	144	157	178	188	211
Compressor input power		kW	32,7	37,1	42,3	50,3	55,8	60,8	67,5
EER		W/W	4,90	4,85	4,78	4,48	4,39	4,29	4,53
Cooling capacity	(2)	kW	165	185	208	232	252	268	315
Sensitive cooling capacity		kW	115	126	139	153	171	182	204
Compressor input power		kW	32,9	37,4	42,7	50,8	56,4	61,4	68,1
EER		W/W	5,02	4,96	4,88	4,57	4,47	4,37	4,62
Heating capacity	(3)	kW	159	179	202	228	244	260	311
Compressor input power		kW	28,3	31,9	35,2	41,2	43,5	46,4	58,1
COP		W/W	5,63	5,62	5,75	5,52	5,60	5,61	5,35

### Cooling (performance is the same also for the cold only versions)

(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b. (EN14511); Functioning with 30% external and expelled air

(2) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 26°C w.b.; Functioning with 30% external and expelled air

### Heating

(3) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b. (EN14511); Functioning with 30% external and expelled air



## Technical data

GENERAL DATA			17	18	19	20S	20	21	23
Compressors									
Compressors	type		scroll						
	no.		4	4	4	4	4	4	4
Circuits	no.		2	2	2	2	2	2	2
Partialisation steps	%		6	6	6	6	6	6	6
Refrigerant gas	type		R410A						
Centrifugal									
External fans	type		AC axial						
	no.		4	4	4	4	4	4	6
Internal flow fans	type		RAD EC						
	no.		2	2	3	3	3	3	4
	Ø mm		630	630	560	560	560	630	560
Internal recovery fans (MB3)	(3)	MB3	type	RAD EC					
	(3)	MB3	no.	3	3	3	3	3	4
	(3)	MB3	Ø mm	500	500	500	500	560	560
Expulsion fans (MB4)	(3)	MB4	type	RAD EC					
	(3)	MB4	no.	2	2	2	2	2	2
	(3)	MB4	Ø mm	450	450	450	500	560	560
Air flow rate	min	m³/h	18200	20300	23100	25900	28000	30800	33600
	nom	m³/h	26000	29000	33000	37000	40000	44000	48000
	max	m³/h	36000	36000	44000	44000	53000	53000	53000
Avail. flow static pressure	(4)	Pa	623	470	497	680	644	415	731
Avail. MB3 recovery static pressure	(4)	Pa	895	776	566	789	788	589	560
Sound data									
Sound power level	dB(A)		83	83	85	88	85	87	90
Sound pressure level	dB(A)		75	75	77	80	77	79	82
Electric power supply	V/ph/Hz		400V/3/50Hz						

(3) Not present in **MB2** and **MB3** configurations

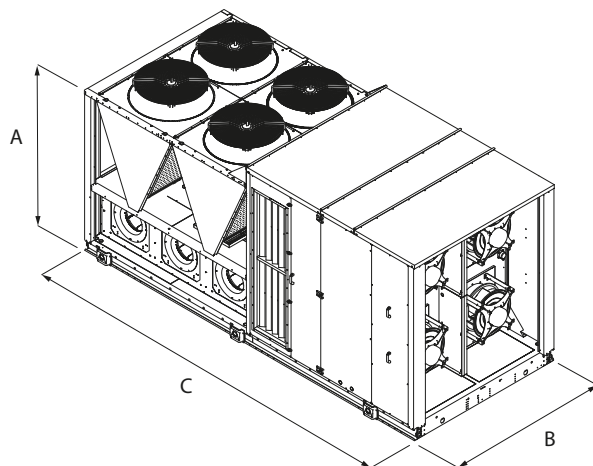
(4) At nominal/maximum flow rate, new clean G4 filter

### Sound Pressure

Sound pressure measured in free field, at (1m, Q = 2) away from the external surface of the channelized, Steamer static 50Pa in supply and extract (according to the UNI EN ISO 9614-2).

**Note:** For further information, refer to the technical documentation available at [www.aermec.com](http://www.aermec.com)

## Dimensional data



Mod. RTX	Vers.	17	18	19	20	21	22	23
Height (mm)	A	2430	2430	2430	2430	2430	2430	2430
Width (mm)	B	2200	2200	2200	2200	2200	2200	2200
Length (mm)	C	5210	5210	5210	5210	7750	7750	7750

# RTY

## 01/10

**HFC**  
Refrigerant

**R410A**

**Roof-top**  
**Air/Air for external installation**  
**with plug fans and scroll compressors**  
**Cooling capacity 30÷135kW**  
**Heating capacity 29÷142kW**



- **HANDLING SECTION WITH PLUG FANS COUPLED WITH BRUSHLESS EC MOTORS**
- **THERMODYNAMIC HEAT RECOVERY**
- **FREE-COOLING OPERATION**
- **FOR HIGH CROWDING APPLICATIONS**

### Features

- Independent Roof-top type air conditioner for treatment, filtration and renewal of the air, based on the chosen configuration. RTY units are designed for high crowding applications, such as cinemas, conference rooms, restaurants, nightclubs being intended for operation with 80% external and expelled air.
- The standard unit allows to manage the cooling operation and the recovery of the energy contained in the exhaust air allowing higher performances and efficiencies.

#### Versions

**RTY\_H** heat pumps

#### Configurations

**MB3** with mixing chamber with three dampers, return fan and heat recovery from expelled air.

The configuration can be further customized with a wide choice of accessories

- 1 refrigerant circuit
- High efficiency scroll compressors (tandem UNEVEN) and low power consumption
- Finned exchangers of the refrigerant circuit direct expansion.
- Supply and return fans, of plug fan type (EC). The impellers are so oriented to ensure that the air flow passes through all the internal components, with the minimum noise.
- Group of axial fans for extremely silent operation placed on the condensing section.

ced on the condensing section.

- Electronic control of condensation and evaporation are standard to extend further the operating limits of the unit.
  - G4 air filter on the flow of outside air and on the recovery; they are installed upstream of the components, to ensure low pressure drops.
  - Microprocessor control can handle the different modes of operation ensuring maximum energy savings in any conditions C
- Interfaces for connections to remote control supervision system, available as optional.

### Accessories and fittings

- **SSV:** Supervision system
- **RS:** Serial card BMS RS485
- **LW:** Interface card LonWorks
- **BIP:** Interface card Ethernet-pCOWeb (BACNET IP)
- **BAC:** interface card BACnet MS/TP pConet
- **FTH:** Enthalpic free-cooling
- **PSTEP:** Adjusting constant flow, step flow in function of the modulation of the cooling circuit
- **FT7:** pocket filters F7 efficiency placed on the flow of supply air.
- **FT9:** Pocket filters F9 efficiency placed on the flow of supply air
- **H10:** Electronic filters placed on the flow of supply air.
- **PSF2:** Differential pressure switch signaling fouled filters of recovery, renewal and discharge
- **Gx:** Heating module with gas burner
- **BW:** 2-rows heating coil with hot water
- **BWV2V:** 2-rows heating coil with hot water, with 2-way modulating valve.
- **BWV3V:** 2-rows heating coil with hot water, with 3-way modulating valve.
- **BE:** Electric heating coil 2 stages (**not available**

**with hot air generator)**

- **BEM:** Modulating electric heating coil (**not available with hot air generator**)
- **BPGC:** After heating coil with hot gas .
- **AXEC:** Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
- **MAN:** High and low pressure gauges
- **U:** installed steam ramp
- **UP:** Immersed electrode producer standard supplied and installed steam ramp
- **CUR:** Humidification control (Humidity probe in recovery , limit humidity probe in supply, contact ON/OFF and modulating analog output)
- **DP:** Dehumidification control (humidity probe in recovery) and of after-heating (if present)
- **SCO2:** Probe CO<sub>2</sub>
- **SVOC:** Probe VOC
- **STA:** Room temperature probe
- **SUA:** Room humidity probe
- **RF:** Smoke detector
- **RFC:** Smoke detector and recirculation damper closure management and external air intake

- **PR1:** Remote control panel
- **SCMRM:** Modulating servo-controls with spring return
- **CA:** Waterproof headphones on external air intake
- **CF:** Flue pipe (only on version with gas burner module)
- **GP:** Protection grille for external coils
- **VT:** antivibration mounts
- **MSSM:** Delivery silencers forms (only for rear air delivery)
- **MSSR:** Recovery silencers forms (only for rear air delivery)

**NOTE: for more details on accessories and equipment, please refer to the technical handbook.**

## Features and technological advantages

RTY units have been designed with the aim of reducing energy consumption that dictated the result of technological choices present on the unit that we briefly present.

- **HIGH EFFICIENCY VENTILATION**

**Ventilation is one of the major factors of power consumption**, for this reason particular attention has been given to the study and the construction of the ventilation system.

Fans type plug-fans with brushless EC motors have been used in both supply and recovery; they enable high performances and low power consumption; also comparing them to conventional centrifugal fans, they have no belts or pulleys allowing easy flow regulation, compactness, versatility and ease of maintenance.

A particular adaptive logic allows to adjust the air flow to the actual demand of the system with more consequent advantages in terms of reduction of consumption.

- Axial fans for the external section of the unit are of helical type; the electronic control of condensation is standard and it regulates the fan speed according to the load required, allowing a noise reduction.  
As an option, the motors can be electronically controlled (EC) for the reduction in consumption of the condenser section.

- **MAXIMUM SEASONAL EFFICIENCIES**

To improve the efficiency of the refrigerant circuit, we have used scroll tandem compressors with different power between them (compressors UNEVEN except for size 08. This feature allows a reduction of consumptions and a better adaptability to the demands of the system, especially in the operation at partial loads, ensuring higher seasonal efficiency.

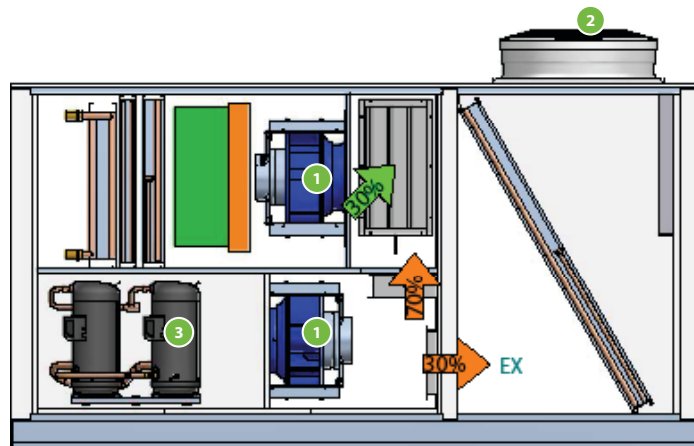
- Particular attention has been given naturally also to the quality of air in the room, entrusted to the standard filters with G4 efficiency on the flow of outside air, also available on the recovery (optional) for process applications.  
They are also available as an (optional) compact filters F7 and F9 or electronic H10 on the flow of fresh air.

- **ACTIVE THERMODYNAMIC RECOVERY**

**It is also available a thermodynamic recovery for the recovery of the energy contained in the exhaust air** in such a way that the flow of exhaust air invests the external finned heat exchanger, allowing higher performances and efficiencies.

Of course all these technological advantages are controlled by a temperature control of the latest generation, able to handle the different modes of operation; ensuring maximum energy savings in all operating conditions by means of a special software.

### Configuration with thermodynamic recovery "MB3"



- 1 Plugfan supply and recovery
- 2 Axial fans
- 3 Tandem scroll compressors
- 4 Thermodynamic recovery EX exhaust air

## Technical data

Mod. RTY Heat pump			01	02	03	04	05	06	07	08	09	10
Cooling capacity	(1)	kW	30,0	39,2	48,2	64,2	73,6	82,3	88,7	110,7	122,4	134,8
Sensitive cooling capacity		kW	21,2	26,9	32,3	42,1	47,6	53,6	59,0	75,1	81,5	88,5
Compressors input power		kW	5,4	8,5	9,8	13,2	15,2	17,6	18,5	24,0	27,1	32,0
EER		W/W	5,6	4,6	4,9	4,9	4,8	4,7	4,8	4,6	4,5	4,2
Cooling capacity	(2)	kW	31,7	41,6	51,0	68,0	78,0	87,2	93,8	116,5	129,1	142,0
Sensitive cooling capacity		kW	18,9	24,1	29,2	38,1	43,3	48,5	53,1	67,2	73,2	79,9
Compressors input power		kW	5,4	8,6	10,0	13,3	15,4	17,8	18,8	24,4	27,7	32,6
EER		W/W	5,9	4,8	5,1	5,1	5,1	4,9	5	4,8	4,7	4,4
Heating capacity	(3)	kW	29,1	39,4	48	65,9	75,5	84,6	90	114,2	126,8	142,2
Compressors input power		kW	4,6	7,2	8,7	13,1	15	16,7	16,5	19,8	22,9	26,8
COP		W/W	6,4	5,4	5,5	5,0	5,0	5,1	5,5	5,8	5,5	5,3

### Cooling

(1) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 24°C b.u. (EN14511); Operating with 80% external and expelled air

(2) Internal temperature 27°C b.s., 19°C b.u.; External temperature 35°C b.s., 26°C b.u.; Operating with 80% external and expelled air

### Heating

(3) Internal temperature 20°C b.s., 15°C b.u.; External temperature 7°C b.s. 6°C b.u. (EN14511); Operating with 80% external and expelled air

GENERAL DATA			01	02	03	04	05	06	07	08	09	10	
Compressors													
Compressors	type		scroll										
	n°		2	2	2	2	2	2	2	2	2	2	
Circuits	n°		1	1	1	1	1	1	1	1	1	1	
Capacity steps	(3)	%	3	3	3	3	3	3	3	2	3	3	
Refrigerant gas	type		R410A										
Fans													
External fans	type		Axial AC										
	n°		1	1	2	2	2	2	2	2	2	2	
Internal fans of flow	type		RAD EC										
	n°		1	1	1	1	1	1	1	1	1	2	
	Ø mm		315	315	350	450	450	450	500	560	630	450	
Internal fans of recovery	type		RAD EC										
	n°		1	1	1	1	1	1	1	2	2	2	
	Ø mm		350	400	400	450	450	500	500	450	450	450	
Air flow of inside fan	nom/max	m³/h	3500	4500	5500	7000	8000	9500	11500	14000	15000	16500	
	min	m³/h	2450	3150	3850	4900	5600	6650	8050	9800	10500	11550	
Available static pressure of supply	(4)	max	Pa	1376	1007	722	475	688	644	462	623	464	772
Available static pressure of recovery	(4)	max	Pa	279	281	283	282	283	286	291	298	301	306
Power supply	V/ph/Hz		400V/3/50Hz										

(3) Sizes 08 don't have UNEVEN compressors

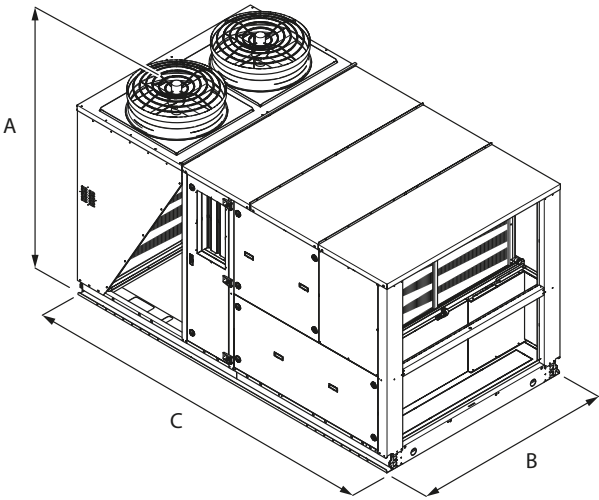
(4) At the nominal/maximum flow rate, G4 medium fouling filter

### Sound pressure

Sound pressure measured in free field, (1m, Q=2) away from the external surface of the ducted unit, available static pressure 300Pa at a nominal flow (in accordance with the UNI EN ISO 3744).

**Note:** For more informations please refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

Dimensional data (mm)



Mod. RTY		Vers.	01	02	03	04	05	06	07	08	09	10
Height	(mm)	A	All	2061	2061	2061	2373	2373	2373	2373	2373	2373
Width	(mm)	B	All	1900	1900	1900	2100	2100	2100	2100	2100	2100
Depth	(mm)	C	All	3400	3400	3400	3400	3400	3400	3400	3400	3400
Empty weight	(kg)		c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.	c.s.

c.s. please contact head office

## RTE

**ROOF-TOP cooling only and heat pump unit**  
**Cooling capacities from 11,3 up to 55,9 kW**  
**Heating capacities from 11,5 up to 55,70 kW**

**HFC**  
 Refrigerant  
**R410A**



### Features

The RTE rooftop units represent the ideal solution for air conditioning medium-small applications for tertiary and commercial use.

The units offer noteworthy advantages in terms of air quality and environmental comfort, easy installation and low noise level.

The availability of many accessories also confers great versatility, thus making the range perfectly suitable for the varied system requirements.

They are reversible air-cooled, used in winter and summer, scroll compressors with R410A refrigerant fluid.

#### Structure:

For 025, 030, 040, 050 sizes it is self-supporting with simple aluminium alloy panelling with isolation of the air handling section via closed cell expanded polyethylene (density 30 kg/m<sup>3</sup>). For 080, 090, 100, 150, 200 sizes it is self-supporting with internal and external aluminium alloy sandwich-type panelling with thickness of 25 mm and injected polyurethane insulation (density 42 kg/m<sup>3</sup>) for the perimeter panels and for the roof of the air handling section.

#### Handling section fans:

for sizes 025, 030, 040, 050, the fans are the centrifugal double intake type directly coupled with the electronic device for variation of the number of revs as per standard. For sizes 080, 090, 100, 150, 200 the fans are the double intake centrifugal type coupled using belts and pulleys with variable pitch.

The direction of delivery air flow can be:

**RTE 020...050**

- Rear

**RTE 080...200**

- Rear / lower / upper

Helical condensation section fans:

statically and dynamically balanced helical type, protected electrically by magnet circuit breakers and mechanically by grids.

#### Cooling circuit:

Fitted with scroll compressors that guarantee low noise level and high efficiency thanks to the use of R410A gas, internal and external coil with copper pipes and high efficiency aluminium

louvers. Air filtering using synthetic pleated filters with G4 efficiency (EN779).

#### Microprocessor adjustment

complete with electric control board, probes and actuators for all components.

models available

#### RTE F

Cooling only version.

#### RTE H

Heat pump version.

## Accessories

**SM** - Mixing chamber 2 dampers.  
Including damper servocontrols and rain-proof hoods.

**SM3P** - Mixing chamber 3 dampers.  
3-damper mixing chamber with return fan and rear intake, including damper servocontrols, rain-proof hoods and management of the free-cooling for temperature.

**SM3I** - Mixing chamber 3 dampers.  
3-damper mixing chamber with return fan and lower intake, including damper servocontrols, rain-proof hoods and management of the free-cooling for temperature.

**SCSM** - Mixing chamber 2 dampers.  
Including servocontrols with dampers spring return and rain-proof hoods.

**SCSM3P** - Mixing chamber 3 dampers.  
3-damper mixing chamber with return fan and rear intake, including spring return servocontrols, dampers, rain-proof hoods and management of the free-cooling for temperature.

**SCSM3I** - Mixing chamber 3 dampers.  
3-damper mixing chamber with return fan and lower intake, including spring return servocontrols, dampers, rain-proof hoods and management of the free-cooling for temperature.

**P** - filters pressure switch.

**BRT2** - 2 row water coils .  
Water coils for two row heating.

**BRT3** - 3 row water coils  
Water coil for three row post-heating.

**BRE** - Electric coils.  
Electric coil. See the table below.

**TP** - Pressure transducers.  
As per standard on all heat pump models.

**DCPR - PRESSURE CONTROL** device.  
Extends the functioning range of the rooftop in the summer cycle (minimum temperature of the external air up to 10 °C) and in the winter cycle in heat pump mode (maximum temperature of the external air up to 25 °C). Moreover, it makes functioning silent with partial loads. A regulation circuit board varies the number of the motor condensing fan revs on the basis of the condensation pressure, read by the relevant transducers, thus guaranteeing correct power supply of the thermostatic valve.

**DP** - dehumidification and post-heating kit.  
Kit for management of dehumidification and post-heating. It can be coupled with the PUC accessory (Humidification contact).

**FCH** - enthalpy freecooling.  
Only for models from 100 to 200 and the 3-damper mixing chamber, if present.  
It can be coupled with:  
- the DP accessory (dehumidification and post-heating management kit) only in presence of the 3-shutter mixing chamber and water or electric coil.  
- the PUC accessory (Humidification contact) only with 3-damper mixing chamber.  
puc - humidification contact  
Only for 100, 150, 200 models.

ON/OFF contact (normally open) for humidification consent. In this case, the unit is complete with one humidity probe positioned in the environment air return. A humidity probe is also supplied to be positioned downstream from the humidification section.  
sqa Air quality probe.  
Only for 100, 200 models.

**PR2 - REMOTE panel.**  
Allows to control the rooftop at a distance.

**GP** - protection grid.  
Protects the external coil from blows and to prevents access to the underlying area where the compressors and the chiller circuit are housed.

**VT** - Rubber anti-vibration mounts.  
Rubber anti-vibration mounts. Select the VT model from the compatibility table.

**AVX** - Spring anti-vibration mounts.  
Spring anti-vibration mounts. Select the AVX model from the compatibility table.

**RC** Roof-curb.  
Only for models from 080 to 200.

**Attention:** The standard configuration control is however able to manage the following accessories, which can also be added at a later date, SM, PF, SSV (supervisor), PR2, TP. For any other accessory, change the electric control board.  
Independently from the type of control, GP , VT, AVX, RC can be supplied at a later date.

Mod.	25	30	40	50	80	90	100	150	200
SM	.	.	.	.	.	.	.	.	.
SM3P	.	.	.	.	.	.	.	.	.
SM3I	.	.	.	.	.	.	.	.	.
SCSM	.	.	.	.	.	.	.	.	.
SCSM3P	.	.	.	.	.	.	.	.	.
SCSM3I	.	.	.	.	.	.	.	.	.
PF	.	.	.	.	.	.	.	.	.
BRT2	.	.	.	.	.	.	.	.	.
BRT3	.	.	.	.	.	.	.	.	.
BRE103 (4)	.	.	.	.	.	.	.	.	.
BRE106	.	.	.	.	.	.	.	.	.
BRE109	.	.	.	.	.	.	.	.	.
BRE107	.	.	.	.	.	.	.	.	.
BRE112	.	.	.	.	.	.	.	.	.
BRE118	.	.	.	.	.	.	.	.	.
BRE212	.	.	.	.	.	.	.	.	.
BRE218	.	.	.	.	.	.	.	.	.
BRE224	.	.	.	.	.	.	.	.	.
BRE236	.	.	.	.	.	.	.	.	.
TP	.	.	.	.	.	.	.	.	.
DCPR	.	.	.	.	.	.	.	.	.
DP	.	.	.	.	.	.	.	.	.
DP+FCH (1)	.	.	.	.	.	.	.	.	.
PUC+FCH (2)	.	.	.	.	.	.	.	.	.
PUC+DP (3)	.	.	.	.	.	.	.	.	.
FCH	.	.	.	.	.	.	.	.	.
PUC	.	.	.	.	.	.	.	.	.
SQA	.	.	.	.	.	.	.	.	.
PR2	.	.	.	.	.	.	.	.	.
GP	.	.	.	.	.	.	.	.	.
VT	.	.	.	.	.	.	.	.	.
AVX	.	.	.	.	.	.	.	.	.
RC	.	.	.	.	.	.	.	.	.

(1) Only if 3-damper mixing chamber and water or electric coil present.

(2) Only with 3-damper mixing chamber.

(3) Only if electric or water coil present.

(4) BRE103 = electric coils, the first indicates the stages, the last two characters indicate the power (e.g.: 1 stage, 3 kW).



## Technical data

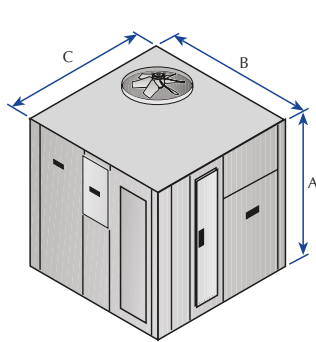
RTE F		25	30	40	50	80	90	100	150	200
Cooling capacity	kW	11,3	13,2	17,2	20,9	25,5	29,7	39,7	48,8	55,9
Sensitive nominal cooling capacity	kW	6,8	8,2	10,3	12,4	15,7	18,8	24	29,6	32,8
Compressor input power	kW	2,4	2,9	3,2	3,8	5,4	6,2	8,1	10,7	11,8
EER	W/W	4,71	4,55	5,38	5,50	4,72	4,79	4,90	4,56	4,74
RTE H		25	30	40	50	80	90	100	150	200
Cooling capacity	kW	11,1	13,2	16,7	20,3	25,1	29,5	39,4	48,3	55,5
Sensitive nominal cooling capacity	kW	6,7	8,2	10,2	12,2	15,5	18,7	23,8	29,4	32,5
Compressor input power	kW	2,4	3	3,3	4	5,4	6,2	8,1	10,7	11,80
EER	W/W	4,63	4,40	5,06	5,08	4,65	4,76	4,86	4,51	4,70
Heating capacity	kW	11,5	12,5	17,1	19,3	25,3	29,1	39,1	48,6	55,70
Compressor input power	kW	2,3	2,3	3,1	3,3	4,6	5,6	6,9	8,8	10,40
COP	W/W	5,00	5,43	5,52	5,85	5,50	5,20	5,67	5,52	5,36
Nominal air flow rate internal fans	m³/h	1.500	1.900	2.400	2.900	4.000	4.500	6.000	8.000	9.000
Minimum air flow for the handling section	m³/h	1.275	1.615	2.040	2.465	3.400	3.825	5.100	6.800	7.650
Maximum air flow for the handling section	m³/h	1.725	2.185	2.760	3.400	4.600	5.175	6.900	9.200	10.350
Compressors	type	Scroll								
	n°	1	1	1	1	1	1	1	1	1
Cooling circuits	n°	1	1	1	1	1	1	1	1	1
Fans	type	Axial								
External fans	n°	1	1	1	1	1	1	4	4	4
Internal fans	n°	1	1	1	1	2	2	2	2	2
Air filters	type	G4								
Thickness	mm	50								
Evaporator	type	1								
Maximum available pressure	Pa	315	275	345	287	350	330	365	360	330
Water coil heating capacity *	kW	16,3	19,2	22,5	25,5	36,1	39	57	68,9	74,4
		22,5	27	32,2	37,1	52,1	56,8	81,8	100,4	109,3
Electric coil heating capacity	kW	3/6/9	3/6/9	3/6/9	6/12/18	6/12/18	12/18/24/36	12/18/24/36	12/18/24/36	12/18/24/36
Sound pressure level	dB(A)	58	58	61	61	64	64	67	67	67
Electrical power supply V/Ph/Hz	400/3+N/50									

\* Room air 20°C d.b., water 80/70°C.

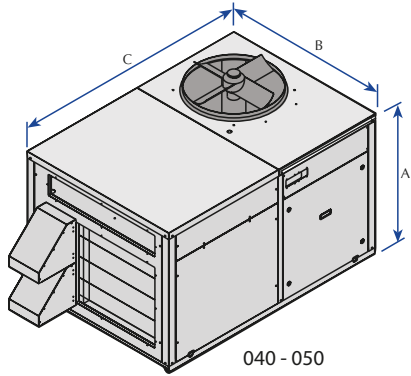
**Cooling capacity**  
RH 50% (Twb 19°C), Text 35°C RH 50%;  
Operation with 30% of ambient air and  
expelled (version with mixing chamber  
with three dampers SM3). Nominal air  
flow.

**Heating capacity**  
Heating capacity Tin 20°C RH 50%, Text  
7°C RH 70%. Operation with 30% of  
ambient air and expelled (version with  
mixing chamber with three dampers  
SM3). Nominal air flow.

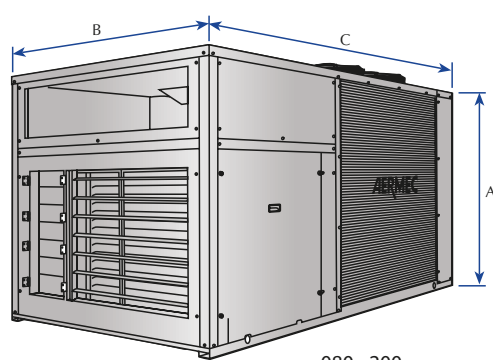
**Sound pressure:**  
Sound pressure in free field, at 10 m distance  
from the external surface of the unit (in accor-  
dance with UNI EN ISO 3744)



025 - 030



040 - 050



080 - 200

RTE			25	30	40	50	80	90	100	150	200
Height	A	mm	1.040	1.040	1.040	1.040	1.175	1.175	1.500	1.500	1.500
Width	B	mm	1.175	1.175	1.175	1.175	1.240	1.240	1.510	1.510	1.510
Depth	C	mm	1.155	1.155	1.155	1.155	1.805	1.805	2.710	2.710	2.710
RTE F weight			kg	235	250	270	285	435	450	650	675
RTE H weight			kg	245	260	280	300	455	470	690	710

Dimensions and weights of the basic set-up unit.

## RTE

**ROOF-TOP cooling only and heat pump unit**  
**Cooling capacities from 82,5 up to 152 kW standard version**  
**Heating capacities from 77,5 up to 148 kW standard version**

**HFC**  
 Refrigerant  
**R410A**



### Features

The rooftop units in the RTE range represent the ideal solution for air conditioning environments with average cubage for tertiary, commercial and industrial destination.

The units offer noteworthy advantages in terms of air quality and environmental comfort, easy installation and low noise level.

The use of ecological R410A fluid refrigerant allows to increase the unit efficiency.

The availability of many accessories, e.g. the cross flow recovery systems or the hot air generator with condensation, also confer a noteworthy versatility, making the RTE range perfectly suitable for the various system requirements.

#### Structure:

Self-supporting with external aluminium alloy and internal galvanised steel sandwich-type panelling with thickness of 50 mm and injected polyurethane insulation (density 42 kg/m<sup>3</sup>) for the air handling section.

#### Air handling section fan:

Double intake centrifugal type with blades facing forwards for greater silence, coupled using belts and pulleys with variable pitch.

The direction of delivery air flow can be: UPWARDS, SIDEWAYS AND DOWNWARDS.

#### Condensation section fans:

Statically and dynamically balanced helical type, protected electrically by magnet circuit breakers and mechanically by grids.

#### Cooling circuit:

Fitted with scroll compressors that guarantee low noise and high efficiency, complete with resistances on the guard, internal and external coil with copper pipes and high efficiency aluminium louvers.

#### Air filtering:

Pleated synthetic filters with G4 efficiency or F7 rigid pocket filters (optional).

Microprocessor adjustment

complete with electric control board, probes and

actuators for all components.

#### Versions:

**RTPA F** cooling only version.

RTPA H heat pump.

High temperature functioning (A)

Silenced functioning (L)

SET-UPS:

**SMP** mixing chamber 2 dampers with rear intake.

**SM2** mixing chamber 2 dampers with lateral/lower intake.

**SM3** mixing chamber 3 dampers with free-cooling.

**FT7** F7 (EN 779) efficiency rigid pocket filters.

**REC** cross flow heat recovery units with intake fan.

**Gxxx** condensation hot air generator (72 kW, 92 kW or 150 kW).

### Accessories

• **DCPR** - Pressure control device Extends the functioning range of the rooftop in the summer cycle (minimum temperature of the external air up to 10 °C) and in the winter cycle in heat pump mode (maximum temperature of the external air up to 25 °C). Moreover, it makes functioning silent with partial loads. A regulation circuit board varies the number of the motor condensing fan revs on the basis of the condensation pressure, read by the relevant

transducers, thus guaranteeing correct power supply of the thermostatic valve.

• **TP** - Pressure transducers (as per standard on heat pumps) They show the high and low pressures on the display, they manage activity of the compressors and the valves during defrosting and inhibit their functioning when the pressures exceed the limits set.

• **RUB** - Cocks on the liquid and pressing line (cooling only version) Hermetic cocks with

manual closure positioned on the compressor delivery and on the circuit liquid side

• **GP** - Protection grids Protect the external coils from blows and hail.

• **T1** - Right lateral air intake (only on SM2).

• **T2** - Left lateral air intake (only on SM2).

• **T3** - Rear air intake (only on SM2).

• **T4** - Lower air intake (only on SM2).

• **T5** - Right lateral air intake (only on SM2).

• **T6** - Left lateral air intake (only on SM2).

- **AI** - Lower intake (only on SM3).
- **PA4** - Rear air intake Return fan static pressure up to 300 Pa at nominal flow rate.
- **MA** - Upper air delivery Upper air delivery, delivery fan static pressure up to 200 Pa at nominal air flow rate.
- **MA** - Left air delivery Left air delivery, delivery fan static pressure up to 200 Pa at nominal air flow rate.
- **MD** - Right air delivery Right air delivery, delivery fan static pressure up to 200 Pa at nominal air flow rate.
- **PM4** - Delivery fan static pressure up to 400 Pa Delivery fan static pressure up to 400 Pa at nominal flow rate.
- **BTR** - Water heating coil 2 row hot water coil with 3-way modulating valve. They can be managed in post-heating mode only with DP accessories. They can be coupled with the G72 or G92 generator.
- **BRE** - Electric heating coil Electric heating coil with two stages fitted with twin safety thermostat, one with automatic rearm and the other with manual rearm. The powers proposed are 12, 18, 24 and 36 kW (or indicate the power requested in the order phase). They can be managed in post-heating mode only with DP accessories. The BRE cannot be coupled with the G72 or G92 generator.
- **PUC** - Humidification control set-up. ON/OFF contact (normally open) for humidification consent. In this case, the unit is complete with humidity probe positioned in the environment

air return. A humidity probe is also supplied to be positioned downstream from the humidification section.

- **DP** - Kit for management of dehumidification and post-heating The control will force compressor functioning in order to dehumidify the air to the set humidity set. If the water or electric coil is present, post-heating can also be managed. It can be coupled with the PUC accessory (humidification contact).
- **SCS** - Damper servocontrols for 2-damper set-up Modulating servocontrols mounted directly on the return and external dampers for the management of fresh air.
- **SCSM** - Damper servocontrols with spring return for 2-damper set-up Servocontrols with spring return mounted directly on the return and external dampers for the management of fresh air. In the event of blackout they close the external air damper completely and completely open the fresh air damper.
- **SCM3** - Damper servocontrols with spring return for 3-damper set-up. Servocontrols with spring return mounted directly on the dampers for management of freecooling as a replacement for the standard ones. In the event of blackout they close the external air dampers completely and completely open the fresh air damper.
- **FCH** - Enthalpy Free-cooling Only with 3-damper mixing chamber. Manages the flow of external and return air, making reference to their enthalpy values.

- **PR2** - Remote panel Allows to perform rooftop control operations from a distance.
  - **SSV - RS485** serial interface for supervision Serial board necessary for the interface with supervision systems.
  - **SQA** - Air quality probe. It analyses the quality of the air on the basis of a SnO2 sensor with VOC mixed gas, evaluating contamination by polluting gases. The presence of the probe coupled to the rooftop allows:
    - to set a sensitivity threshold depending on the envisioned maximum contamination of the air.
    - the ventilation of the rooms only when necessary, thus guaranteeing energy saving.
  - **TV2** - Power supply voltage 3/230V/50Hz.
  - **TV3** - Power supply voltage 3/460V/60Hz.
  - **VTR** (3 - 5 - 7) - Anti-vibration mounts Rubber anti-vibration mounts.
  - **PF** - Filters dirtying pressure switch
  - **BSP** - Special coils Condensing coils with copper pipes and pre-painted aluminium louvers.
  - **BSR** - Special coils Condensing coils with copper pipes and copper louvers.
  - **BSS** - Special coils Condensing coils with copper pipes and tinned copper louvers.
- NOTE: for further information refer to the technical manual.**

Accessories coupling		Size 240 - 260 - 300 - 350 - 400					
Version		cooling only (F)			Heat pump (H)		
Functioning	std	L (no 350 and 400)	A (no 350 and 400)	std	L (no 350 and 400)	A (no 350 and 400)	
DCPR	•	as per standard	•	•	as per standard	•	
TP	•	•	•	as per standard	as per standard	as per standard	
RUB	•	•	•	-	-	-	
GP	•	•	•	•	•	•	
T1 (1)	•	•	•	•	•	•	
T2 (1)	•	•	•	•	•	•	
T3	•	•	•	•	•	•	
T4	•	•	•	•	•	•	
T5 (1)	•	•	•	•	•	•	
T6 (1)	•	•	•	•	•	•	
AI	•	•	•	•	•	•	
PA4	•	•	•	•	•	•	
MA	•	•	•	•	•	•	
MS (1)	•	•	•	•	•	•	
MD (1)	•	•	•	•	•	•	
PM4	•	•	•	•	•	•	
BTR	•	•	•	•	•	•	
BRE	•	•	•	•	•	•	
PUC	•	•	•	•	•	•	
DP	•	•	•	•	•	•	
SCS	•	•	•	•	•	•	
SCSM	•	•	•	•	•	•	
SCM3	•	•	•	•	•	•	
FCH	•	•	•	•	•	•	
PR2	•	•	•	•	•	•	
SSV	•	•	•	•	•	•	
SQA	•	•	•	•	•	•	
TV2	•	•	•	•	•	•	
TV3	•	•	•	•	•	•	
VTR3 (basic set-up)	•	•	•	•	•	•	
VTR5 (for units from 5 to 7.1 m)	•	•	•	•	•	•	
VTR7 (for units over 7.1 m)	•	•	•	•	•	•	
PF	•	•	•	•	•	•	
BSP	•	•	•	•	•	•	
BSR	•	•	•	•	•	•	
BSS	•	•	•	•	•	•	

(1) Right or left direction refers to the direction of air flow inside the handling sections.

RTE F		Standard					High temperature (A)			Low noise (L)		
		240	260	300	350	400	240	260	300	240	260	300
Cooling capacity	kW	82,5	94,2	109,7	137,9	152,1	83,7	96,6	116,1	74,1	89,1	109,3
Sensitive nominal cooling capacity	kW	50,2	61,8	66,6	77,8	83,1	50,2	61,6	67,7	45,9	59,3	66,3
Compressor input power	kW	16	18,9	23,6	28,6	33,9	16,5	18,8	23	17,5	21,6	24,6
EER	W/W	5,16	4,98	4,65	4,82	4,49	5,07	5,14	5,05	4,23	4,13	4,44

RTE H		Standard					High temperature (A)			Low noise (L)		
		240	260	300	350	400	240	260	300	240	260	300
Cooling capacity	kW	81,8	93,4	111,8	137	150	82,9	95,7	114,9	72,3	89,1	90,4
Sensitive nominal cooling capacity	kW	49,7	61,8	67,2	77,1	83,1	49,7	61,6	67,7	45,9	59,3	64,2
Compressor input power	kW	16	18,9	23,6	28,6	33,9	16,5	18,8	23	17,5	21,6	21,7
EER	W/W	5,11	4,94	4,74	4,79	4,42	5,02	5,09	5,00	4,13	4,13	4,17
Heating capacity	kW	77,5	89,9	107,7	133	148	81,1	95,6	106,2	78	88,8	88,1
Compressor input power	kW	13,4	14,4	17,3	22,5	26,8	13,8	15,3	17,9	13,9	15	17,8
COP	W/W	5,8	6,2	6,2	5,9	5,5	5,9	6,2	5,9	5,6	5,9	4,9

Nominal air flow rate internal fans	m <sup>3</sup> /h	12.000	17.000	20.000	22.000	23.000	12.000	17.000	20.000	12.000	17.000	20.000
Minimum air flow for the handling section	m <sup>3</sup> /h	10.400	14.800	17.400	19.100	19.550	10.400	14.800	17.400	10.400	14.800	17.400
Maximum air flow for the handling section	m <sup>3</sup> /h	14.100	20.000	23.500	23.500	23.500	14.100	20.000	23.500	14.100	20.000	23.500
Compressors	Type	Scroll										
	n°	2										
Cooling circuits	n°	2										
External fans	Type	Axial										
	n°	4										
Nominal air flow rate	m <sup>3</sup> /h	32.000	29.000	28.000	40.000	34.200	29.000	28.000	33.000	19.000	18.000	22.000
Internal fans	q.tà	1										
Maximum available pressure	Pa	200										
Air filters	Type	G4										
Thickness	mm	50										
Evaporator	Type	4										
Water coil heating capacity *	kW	140	179	200	213	219	140	179	200	140	179	200
Gas heating module heating capacity	kW	72	92	92	92	92	72	92	92	72	92	92
		92	150	150	150	150	92	150	150	92	150	150
Sound pressure level	dB(A)	72	73	74	77	78	72	73	74	69	70	71
Electrical power supply V/Ph/Hz		400/3+N/50										

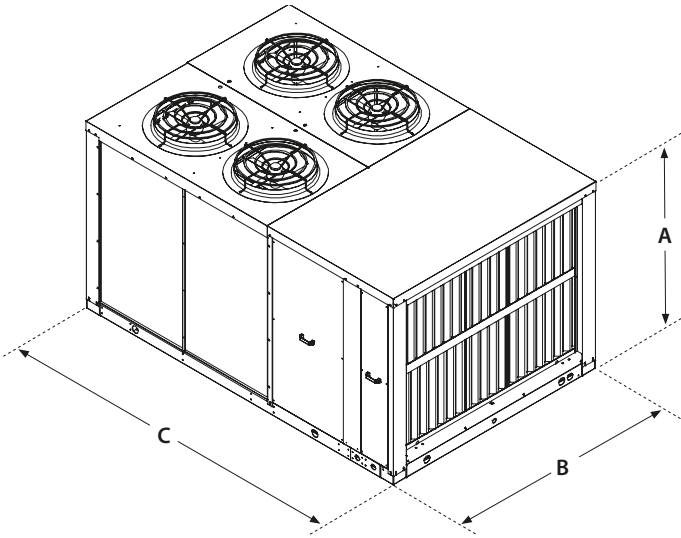
\* Room air 20°C d.b., water 80/70°C.

**Cooling capacity**  
RH 50% (Twb 19°C), Text 35°C RH 50%;  
Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

**Heating capacity**  
Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%. Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

**Sound pressure:**  
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensional data (mm)



RTE			240	260	300	350	400
Height	A	mm	1.830	1.830	1.830	1.830	1.830
Width	B	mm	2.166	2.166	2.166	2.166	2.166
Depth	C	mm	3.290	3.290	3.290	3.286	3.286
Weight RTE		kg	1300	1390	1480	1.565	1.645
Weight RTE H		kg	1320	1410	1500	1.645	1.725

Dimensions and weights of the basic set-up unit.

## RTE

**ROOF-TOP cooling only and heat pump unit**  
**Cooling capacities from 150 up to 254 kW standard version**  
**Heating capacities from 151 up to 266 kW standard version**

**HFC**  
**Refrigerant**  
**R410A**



### Features

The rooftop units in the RTE range represent the ideal solution for air conditioning environments with average and large cubage for tertiary, commercial and industrial destination.

The units offer noteworthy advantages in terms of air quality and environmental comfort, easy installation and low noise level.

The use of ecological R410A fluid refrigerant allows to increase the unit efficiency.

The availability of many accessories, e.g. the cross flow recovery systems or the hot air generator with condensation, also confer a noteworthy versatility, making the RTE range perfectly suitable for the various system requirements.

#### Structure:

Self-supporting with external aluminium alloy and internal galvanised steel sandwich-type panelling with thickness of 50 mm and injected polyurethane insulation (density 42 kg/m<sup>3</sup>) for the air handling section.

#### Air handling section fan:

Double intake centrifugal type with blades facing forwards for greater silence, coupled using belts and pulleys with variable pitch.

The direction of delivery air flow can be:

#### UPWARDS, SIDEWAYS AND DOWNWARDS.

#### Condensation section fans:

Statically and dynamically balanced helical type, protected electrically by magnet circuit breakers and mechanically by grids.

#### Double cooling circuit:

which at the same time guarantees the respect for the environment and the increase of energy efficiency. The cooling circuit lines and the electric plant wiring are inserted into the base of the machine with the purpose of making maintenance and internal cleaning easier.

Scroll tandem compressors that guarantee low noise and high efficiency.

Internal and external coil with copper pipes and high efficiency aluminium louvers.

#### Air filtering:

Pleated synthetic filters with G4 efficiency or F7 rigid pocket filters (optional).

Microprocessor adjustment

complete with electric control board, probes and actuators for all components.

#### Versions:

#### RTPA F cooling only version.

#### RTPA H heat pump.

#### High temperature functioning (A)

#### Silenced functioning (L)

#### SET-UPS:

**SMP** mixing chamber 2 dampers with rear intake.

**SM2** mixing chamber 2 dampers with lateral/lower intake.

**SM3** mixing chamber 3 dampers with free-cooling.

**FT7 F7 (EN 779)** efficiency rigid pocket filters.

**REC** cross flow heat recovery units with intake fan.

**Gxxx** condensation hot air generator.

### Accessories

- **DCPR** - Pressure control device (as per standard for silenced functioning mode) Extends the functioning range of the rooftop in the summer cycle (minimum temperature of the external air up to 10 °C) and in the winter cycle in heat pump mode (maximum temperature of the external air up to 25 °C). Moreover, it makes functioning silent with partial loads. A regulation circuit board varies the number of the motor condensing fan revs on the basis of the condensation pressure, read by the relevant transducers, thus

guaranteeing correct power supply of the thermostatic valve.

- **GP** - Protection grids Protect the external coils from blows and hail.
- **T1** - Right lateral air intake (only on SM2).
- **T2** - Left lateral air intake (only on SM2).
- **T4** - Lower recirculation air intake. rear fresh air intake (only on SM2).
- **T5** - Right lateral recirculation air intake. left fresh air intake (only on SM2).

- **T6** - Left lateral recirculation air intake. right fresh air intake (only on SM2).
- **AI** - Lower intake (only on SM3).
- **PA4** - Rear air intake Return fan static pressure up to 300 Pa at nominal flow rate.
- **MA** - Upper air delivery.
- **MS** - Left air delivery nominal air flow rate.
- **MD** - Right air delivery.
- **PM4** - Delivery fan static pressure up to 400. Pa Static pressure of the delivery fan up to 400 Pa at



- nominal flow rate.
- **BTR** - Water heating coil 2 row hot water coil with anti-freeze probe as per standard. They can be managed in post-heating mode only with DP accessories. They can be coupled with the Gxxx generator.
  - **V3V** - 3-way valve with servocontrol modulating for the management of the water coil mounted inside the rooftop
  - **BRE** - Electric heating coil Electric heating coil with two stages fitted with twin safety thermostat, one with automatic rearm and the other with manual rearm. They can be managed in post-heating mode only with DP accessories. The BRE cannot be coupled with the Gxxx generator.
  - **PUC** - Humidification control set-up. ON/OFF contact (normally open) for humidification consent. In this case, the unit is complete with humidity probe positioned in the environment air return. A humidity probe is also supplied to be positioned downstream from the humidification section.
  - **DP** - Kit for management of dehumidification and post-heating The control will force compressor functioning in order to dehumidify the air to the set humidity set. If the water or electric coil is present, post-heating can also be managed. It can be coupled with the PUC accessory (humidification contact).
  - **SCSR** - Recirculation damper for SMP mixing chamber.
  - **SRP** - Recirculation damper for the SMP mixing chamber and modulating servocontrol (joined dampers).
  - **SCMP** - Recirculation damper for the SMP mixing chamber and modulating servocontrol with spring return.
  - **SCS2** - Recirculation damper for SM2 mixing chamber.
  - **SR2** - Recirculation damper for the SM2 mixing chamber and modulating servocontrol.
  - **SCM2** - Recirculation damper for the SM2 mixing chamber and modulating servocontrol on return and modulating servocontrol with spring return on fresh air.
  - **SCM3** - Modulating servocontrols with spring control for SM3 or REC set-ups.
  - **FCH** - Enthalpy Free-cooling Only with 3-damper mixing chamber. Manages the flow of external and return air, making reference to their enthalpy values.
  - **PR2** - Remote panel Allows to perform rooftop control operations from a distance.
  - **SSV** - RS485 serial interface for supervision Serial board necessary for the interface with supervision systems.
  - **SQA** - Air quality probe. It analyses the quality of the air on the basis of a SnO2 sensor with VOC mixed gas, evaluating contamination by polluting gases. The presence of the probe coupled to the rooftop allows:
    - to set a sensitivity threshold depending on the envisioned maximum contamination of the air.
  - the ventilation of the rooms only when necessary, thus guaranteeing energy saving.
  - **CAF** - For protection of the external air inlets in the mixing chambers with 2 dampers or recovery unit. As per standard with SM3.
  - **CF** - Stainless steel flue, double isolated wall with inspection cap and measuring sump with flue gas temperature thermometer.
  - **PF** - Filters dirtying pressure switch.
  - **RUB** - Cocks on the liquid and pressing line (cooling only version).

**NOTE: for further information refer to the technical manual.**

Accessories coupling		Size 480-530-600-700-800				
Version		cooling only (F)			Heat pumps (H)	
Functioning	std	L	A (no 700 - 800)	std	L	A (no 700 - 800)
DCPR	•	standard	•	•	standard	•
TP	•	•	•	standard	standard	standard
GP	•	•	•	•	•	•
T1	•	•	•	•	•	•
T2	•	•	•	•	•	•
T4	•	•	•	•	•	•
T5	•	•	•	•	•	•
T6	•	•	•	•	•	•
AI	•	•	•	•	•	•
PA4	•	•	•	•	•	•
MA	•	•	•	•	•	•
PM4	•	•	•	•	•	•
BTR	•	•	•	•	•	•
V3V	•	•	•	•	•	•
BRE (1)	•	•	•	•	•	•
PUC	•	•	•	•	•	•
DP	•	•	•	•	•	•
SCSR	•	•	•	•	•	•
SRP	•	•	•	•	•	•
SCMP	•	•	•	•	•	•
SCS2	•	•	•	•	•	•
SR2	•	•	•	•	•	•
SCM2	•	•	•	•	•	•
SCM3	•	•	•	•	•	•
FCH	•	•	•	•	•	•
PR2	•	•	•	•	•	•
SSV	•	•	•	•	•	•
SQA	•	•	•	•	•	•
CAF	•	•	•	•	•	•
CF (only with Gxxx)	•	•	•	•	•	•
PF	•	•	•	•	•	•
RUB	•	•	•	-	-	-
VT	•	•	•	•	•	•

(1) Not available with Gxxx set-ups.

## Technical data

RTE F		Standard					High temperature (A)		
		480	530	600	700	800	480	530	600
Cooling capacity	kW	160,6	189,8	210,9	247	274,4	167,3	195,6	223,6
Sensitive nominal cooling capacity	kW	119,5	147,1	159,3	184,5	201,5	123,3	149,6	150,5
Compressor input power	kW	39,3	43,1	47	58	69,9	36,9	40,9	45,1
EER	W/W	4,09	4,40	4,49	4,26	3,93	4,53	4,78	4,96

RTE H		Standard					High temperature (A)		
		480	530	600	700	800	480	530	600
Cooling capacity	kW	155,7	188,3	207,9	245,8	272,2	163,7	190,5	219,3
Sensitive nominal cooling capacity	kW	120,5	145,9	157,8	183,1	201,2	122,8	147,4	158,8
Compressor input power	kW	41,4	43,8	48,8	59,1	70,9	37,5	42,4	47,6
EER	W/W	3,76	4,30	4,26	4,16	3,84	4,37	4,49	4,61
Heating capacity	kW	158,1	186,4	212,7	242,2	278,8	167,3	191,6	217,2
Compressor input power	kW	28,7	31,5	37	49,2	60,4	29,5	31,8	36,9
COP	W/W	5,51	5,92	5,75	4,92	4,62	5,67	6,03	5,89
Nominal air flow rate internal fans	m³/h	26.500	29.500	31.500	35.000	38.500	26.500	29.500	31.500
Minimum air flow for the handling section	m³/h	22.500	25.000	26.800	29.800	32.700	22.500	25.000	26.800
Maximum air flow for the handling section	m³/h	30.500	34.000	36.300	40.300	44.300	30.500	34.000	36.300
Compressors	Type	Scroll tandem							
	n°	4							
Cooling circuits	n°	2							
External fans	Type	Axial							
	n°	4							
Nominal air flow rate	m³/h	74.600	72.400	69.200	84.400	80.600	72.400	69.200	67.400
Internal fans	n°	1							
Maximum available pressure	Pa	200							
Air filters	Type	G4							
Thickness	mm	50							
Evaporator	Type	3	4	4	4	4	4	4	4
Sound pressure level	dB(A)	82	83	84	87	88	82	83	84
Electrical power supply V/Ph/Hz		400/3/50							

RTE F		Silenziosa L				
		480	530	600	700	800
Cooling capacity	kW	157,6	189,3	215,6	245,4	268
Sensitive nominal cooling capacity	kW	123,7	147,2	160,3	184,3	199,6
Compressor input power	kW	40,7	42,9	45,1	58,7	73,3
EER	W/W	3,87	4,41	4,78	4,18	3,66

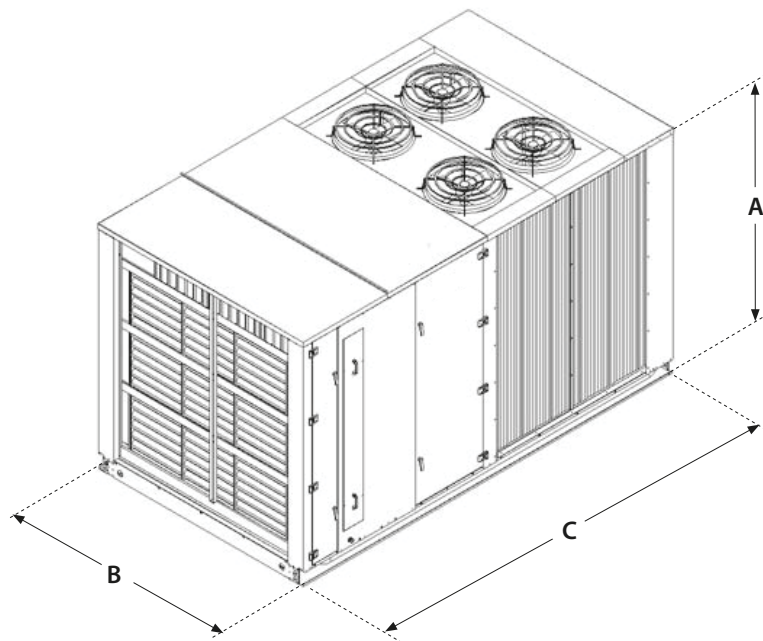
RTE H		Standard				
		480	530	600	700	800
Cooling capacity	kW	154,4	188,3	211,8	242,5	266
Sensitive nominal cooling capacity	kW	119,1	145,9	159,8	182,5	198,7
Compressor input power	kW	42,6	43,8	46,5	60,7	74,6
EER	W/W	3,62	4,30	4,55	4,00	3,57
Heating capacity	kW	157	186,7	205,8	238,9	262,8
Compressor input power	kW	28,6	31,5	36,4	48,9	58,5
COP	W/W	5,49	5,93	5,65	4,89	4,49
Nominal air flow rate internal fans	m³/h	26.500	29.500	31.500	35.000	38.500
Minimum air flow for the handling section	m³/h	22.500	25.000	26.800	29.800	32.700
Maximum air flow for the handling section	m³/h	30.500	34.000	36.300	40.300	44.300
Compressors	Type	Scroll tandem				
	n°	4				
Cooling circuits	n°	2				
External fans	Type	Axial				
	n°	4				
Nominal air flow rate	m³/h	74.600	72.400	69.200	84.400	80.600
Internal fans	n°	1				
Maximum available pressure	Pa	200				
Air filters	Type	G4				
Thickness	mm	50				
Evaporator	Type	3	4	4	4	4
Sound pressure level	dB(A)	82	83	84	87	88
Electrical power supply V/Ph/Hz		400/3/50				

**Cooling capacity**  
RH 50% (Twb 19°C), Text 35°C RH 50%;  
Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

**Heating capacity**  
Heating capacity Tin 20°C RH 50%, Text 7°C RH 70%. Operation with 30% of ambient air and expelled (version with mixing chamber with three dampers SM3). Nominal air flow.

**Sound pressure:**  
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Dimensional data (mm)



RTE			480	530	600	700	800
Height	A	mm	2450	2450	2.450	2.450	2450
Width	B	mm	2350	2350	2.350	2.350	2350
Depth	C	mm	4200	4200	4.200	5.500	5500
Depth RTE		kg	2100	2200	2300	2700	2800
Depth RTE H		kg	2200	2300	2400	2800	2900

Dimensions and weights of the basic set-up unit.

# AIR/WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.

The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.

The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

AIR / WATER CHILLERS AND HEAT PUMPS		Air flow-rate (m <sup>3</sup> /h)	Cooling cap. (kW)	Heating cap. (kW)	Page
<b>Unit with scroll compressors</b>					
<b>ANKI 020H-045H</b>	Reversible heat pump with inverter	-	5,8-12,0	6,0-12,3	228
<b>ANLI 021H-101H</b>	Reversible heat pump with inverter	-	5,7-42,3	6,1-32,9	232
<b>HSI</b>	Reversible inverter split heat pump	-	5,5-10,4	7,7-12,8	236
<b>ANK 020H-150H</b>	Reversible heat pump optimised for heating	-	6,8-39,9	7,8-35,9	240
<b>SWP</b>	Heat pump for hot water production (with reciprocating compressor)	-	-	1,9	244
<b>ANL 020-202</b>	Chiller, condensing unit	-	5,6-43,7	-	246
<b>ANL 020-202H</b>	Reversible heat pump	-	5,6-49,9	6,1-45,7	250
<b>ANL 290-650</b>	Chiller	-	54,5-132,9	-	254
<b>ANL 290H-650H</b>	Reversible heat pump	-	52,9-174,2	60,8-147,0	258
<b>NRK 0090-0150</b>	Reversible heat pump optimised for heating	-	18,3-40,6	20,2-34,6	262
<b>NRK 0200-0700</b>	Reversible heat pump optimised for heating	-	35,5-148,0	42,3-175,0	266
<b>NRL 0280-0750</b>	Chiller	-	52,6-193,6	-	270
<b>NRL 0280H-0750H</b>	Reversible heat pump	-	50,7-179,0	58,4-205,4	274
<b>NRV 0550</b>	Chiller	-	103,5-108,1	-	278
<b>NRB 0800-3600</b>	Chiller	-	217-1047	-	280
<b>NRB 0800H-3600H</b>	Reversible heat pump	-	196,0-969,3	210,0-1002,0	284
<b>NRL 0800H-1800H</b>	Reversible heat pump	-	183,0-470,0	228,0-526,0	288
<b>Units with scroll compressors and centrifugal or Plug Fans</b>					
<b>CL 025-200</b>	Chiller with Plug Fan	-	5,6-41,3	-	292
<b>CL 025H-200H</b>	Reversible heat pump with Plug Fan	-	6,3-38,3	7,8-44,0	296
<b>NLC 0280-1250</b>	Chiller with Plug Fan	-	52,1-318,4	-	300
<b>NLC 0280H-1250H</b>	Reversible heat pump with Plug Fan	-	52,0-315,6	56,5-349,1	304
<b>Units with screw compressors</b>					
<b>NSM 1402-9603</b>	Chiller	-	302-2100	-	308
<b>NSMI 1402-4402</b>	Chiller with Inverter screw compressors	-	285-1006	-	316
<b>NSH 1251-3602</b>	Reversible heat pump	-	250,0-730,0	282,0-789,0	320
<b>new NSG 1402-9603</b>	Chiller (with R1234ze)	-	-	-	324
<b>Units with centrifugal compressors</b>					
<b>TBX 1401-4102</b>	Chiller	-	259-861	-	332

## ANKI

**Reversible inverter heat pump Air/Water outdoor installation**  
**Twin rotary compressor, Plate exchanger and axial fan**  
**Cooling capacity 5,85 - 12,0 kW**  
**Heating capacity 6,08 - 12,3 kW**

**HFC**  
Refrigerant

**R410A**



Aermec participates in the EUROVENT programme: LCP  
 The products involved can be found at the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

*Variable Multi Flow*

VMF



- **PRODUCTION OF HOT WATER UP TO 60 °C**
- **PRODUCTION OF HOT DOMESTIC WATER WITH EXTERNAL TEMPERATURES FROM -20 °C UP TO 42 °C**

### Features

Reversible outdoor inverter heating pump for air-conditioning systems where, in addition to cooling rooms, high temperature hot water is required for heating or for the production of hot domestic water.

All the units are equipped with rotary compressors, axial fans, external coil with aluminium fins, and a plate heat exchanger on the side. The base, the structure and the panels are made of steel treated with polyester anti-corrosion paints. They are also available with an integrated hydronic unit, thereby simplifying also the final installation because it just need to be connected electrically and hydraulically to be able to start it.

#### Versions

**ANKI H:** Standard  
**ANKI HX:** With inverter pump

#### Range of operations

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Hot water production up to 60°C (for more information see the technical documentation)

- Single circuit.

- The units are equipped with the soft start, an electronic device to reduce the peak current.
- Flow switch, high and low pressure transducers fitted as standard.
- Water filter supplied
- Option of an integrated hydronic unit, which contains the main hydraulic components.
- Micro-processor adjustment Electronic board

### Accessories

- **MOD485K:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;  
**SDHW: Domestic hot water temperature sensor.** Used with the storage tank to control the temperature of water produced.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating

mode, diagnostics and alarm reset). Maximum distance permitted is 30 m with screened cable, otherwise up to 10 m.

- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system. For complete control the following accessories are available:  
**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring. **SDHW: Domestic hot water temperature sensor.** Used with the storage tank to control the temperature of water produced.
- **VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**
- **BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area.

- **DCPX:** Low temperature device for correct cooling mode operation with ambient temperatures
- **BDX:** Condensate drip tray.
- **VT:** Anti-vibration mounts.
- **SAF:** Thermal Buffer tank for the instantaneous production of domestic hot water.  
**Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.**

#### Accessories factory fitted only

- **KR:** Electric anti-freeze resistance for plate heat exchanger.
- **KRB:** Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

#### COMPATIBILITY with the VMF SYSTEM

For further information about the system see the specific documentation.

## Accessory compatibility

ANKI	vers	020	025	040	045
MOD845K		•	•	•	•
AERWEB300		•	•	•	•
PGD1		•	•	•	•
PR3		•	•	•	•
MULTICONTROL		•	•	•	•
BS4KW230M		•	•	•	•
BS6KW230M		•	•	•	•
DCPX	(1)	71	71	71	71
BDX		30	30	30	30
VT	H/HX	9	9	9	9
SAF	(2)	•	•	•	•
<b>Accessories factory fitted only</b>					
KR2		•	•	•	•
KRB1		•	•	•	•

(1) Not use the accessory DCPX for units with fans "J or F"

(2) For more information, see the commercial documentation available on the website [www.aermec.com](http://www.aermec.com)

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field	Code
1,2,3,4	ANKI
5,6,7	Size
	020-025-040-045
8	Model
	H Heat pump
9	Versions
	° Standard
	X With inverter pump
10	Heat recovery
	° Without heat recovery
11	Coil fin
	° Aluminium
	V In painted aluminium-copper (epoxy paint)
	O Aluminium with Cataphoresis treatment
12	Fans
	° Standard
	J Inverter
	F Standard phase cut
13	Field of use
	° Standard (leaving water temperature down to -8°C)
14	Evaporator
	° Standatd
15	Power supply
	M 230V/1/50Hz
16	Filed not used
	°



## Technical Data

ANKI - H		020	025	040	045
V/ph/Hz		230V~50Hz			
12°C / 7°C	Cooling capacity (1) kW	5,85	7,31	9,39	11,78
	Total input power (1) kW	1,96	2,61	3,15	4,22
	EER (1)	2,98	2,80	2,98	2,79
	ESEER (1)	4,15	4,10	4,06	4,10
	Cooling Energy Class Eurovent (1)	A	A	A	A
	Water flow rate (1) l/h	1026	1258	1622	2017
40°C / 45°C	Pressure drop (1) kPa	16	22	13	19
	Heating capacity (2) kW	6,23	7,80	9,35	12,33
	Total input power (2) kW	1,93	2,46	3,06	4,12
	COP (2)	3,22	3,17	3,05	3,00
	Heating Energy Class Eurovent (2)	A	B	B	B
	Water flow rate (2) l/h	1062	1351	1646	2124
Performance under average climatic conditions (Average)		14	21	10	17
Pdesignh (3)		6	7	8	11
SCOP (3)		2,87	2,89	2,57	2,56
ηs (3)		112	113	100	100
Efficiency Energy Class (5)		A+	A+	A+	A+
Pdesignh (4)		6	7	9	12
SCOP (4)		3,57	3,55	3,41	3,20
ηs (4)		140	139	133	125
Efficiency Energy Class (5)		A+	A+	A+	A+

ANKI - HX		020	025	040	045
V/ph/Hz		230V~50Hz			
12°C / 7°C	Cooling capacity (1) kW	6,00	7,49	9,59	12,00
	Total input power (1) kW	1,89	2,52	3,04	4,09
	EER (1)	3,18	2,97	3,16	2,93
	ESEER (1)	4,89	5,01	4,78	4,79
	Cooling Energy Class Eurovent (1)	A	A	A	A
	Water flow rate (1) l/h	1026	1258	1622	2017
40°C / 45°C	High static pressure (1) kPa	74	68	76	61
	Heating capacity (2) kW	6,08	7,61	9,16	12,11
	Total input power (2) kW	1,86	2,36	2,95	3,98
	COP (2)	3,28	3,23	3,10	3,04
	Heating Energy Class Eurovent (2)	A	A	B	B
	Water flow rate (2) l/h	1062	1351	1646	2124
Performance under average climatic conditions (Average)		76	69	77	60
Pdesignh (3)		5	7	8	11
SCOP (3)		2,91	2,95	2,62	2,61
ηs (3)		113	115	102	101
Efficiency Energy Class (5)		A+	A+	A+	A+
Pdesignh (4)		6	7	9	12
SCOP (4)		3,83	3,82	3,61	3,36
ηs (4)		150	150	141	131
Efficiency Energy Class (5)		A++	A++	A+	A+

### Date (14511:2013)

- (1) Water evaporator 12°C/7°C, External air 35°C
- (2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
- (3) Efficiencies for average temperature Applications (55°C)
- (4) Efficiencies for low temperature Applications (35°C)
- (5) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

## Technical Data

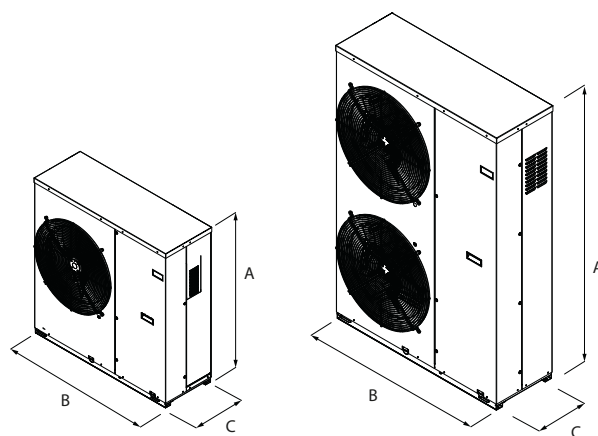
			020	025	040	045
<b>Electrical data</b>						
230V	Total input current (cooling)	(8)	A	8,3	11,1	13,5
	Total input current (heating)	(8)	A	10,5	13,2	17,6
	Maximum current (FLA)	(8)	A	12,1	14,1	20,0
	Starting current (LRA)	(8)	A	8,0	8,0	10,0
230V	Total input current (cooling)	(8)	A	9,0	11,8	14,3
	Total input current (heating)	(8)	A	11,2	13,9	18,4
	Maximum current (FLA)	(8)	A	12,9	14,9	20,8
	Starting current (LRA)	(8)	A	8,8	8,8	10,8
<b>Compressor</b>						
Compressor Inverter twin rotary			n°	1		
Circuit			n°	1		
Refrigerant			Type	R410A		
<b>Heat exchanger system side - Plate</b>						
Exchanger			n°	1		
hydraulic connections (In/Out)			Ø	1"		
<b>Axial fans</b>						
Fans			Type/n°	1	2	2
Air flow rate (cooling)				3590	7480	7480
<b>Sound data (cooling mode)</b>						
Sound power level			dB(A)	64,0	65,4	66,7
Sound pressure level			dB(A)	32,7	34,1	35,4

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



ANKI				020	025	040	045
Height	(A)	All	mm	1028	1028	1481	1481
Width	(B)	All	mm	1000	1000	1000	1000
Depth	(C)	All	mm	346	346	346	346
Weight		H	kg	80	80	113	113
		HX	kg	82	82	115	115

Cod.: SANKIUY.04 / 1703

# ANLI

**Reversible heat pumps inverter**  
**Air/water outdoor installation.**  
**Axial fans and scroll compressor**  
**Cooling capacity 5,70÷29,43kW**  
**Heating capacity 6,10÷31,7kW**

**HFC**  
Refrigerant

**R410A**



Aermec participates at EUROVENT program: LCP  
 The involved products can be found in the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

*Variable Multi Flow*

VMF

INVERTER  
TECHNOLOGY



- **STANDARD VERSION**
- **VERSION WITH BUILT-IN HYDRONIC KIT INVERTER**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **PRODUCTION OF HOT DOMESTIC WATER (D.H.W.)**

## Features

Reversible Heat pumps units

### Version

**ANLI\_H** Heat pumps, without hydronic kit

### Versions with hydronic kit

**ANLI\_HX** with standard pump inverter

#### • Operational limits (1)

- max. external air temperature 42°C
- max. Leaving water temperature 60°C heating mode
- Capable of variable water flow rates on primary circuit (terminals with 2-way valves)
- Perfect water temperature control even in systems with low water content
- Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided)
- High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation

- Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:  
 Constant ΔP: maintains constant pressure differential between pump inlet and outlet; pump speed reduces as terminal valves close  
 Variable ΔP: reduces pressure differential with flow reduction, in consideration of the pressure reduction in the pipe-work system to the terminals (recommended for larger pipe-work systems)
- Water filter, differential pressure switch, depending on the model, fitted on all units.
- High efficiency heat exchangers with trace heating as standard
- Axial flow fan units for extremely quiet operation
- Inverter axial fan (for size up 071H to 080H)
- Fitted with EMC filters
- The built-in hydraulic kit includes the main water circuit components

- Controller:
  - Aermec Modu\_Control circuit board
  - User interface with 6 soft-touch keys, 4 digit display, 6 LEDs
  - Control of the leaving water temperature with PID algorithm
  - Set-point compensation based on the external air temperature
  - Display of operating frequency
  - Control of compressor ramp speed
  - Auto-adaptive intelligent defrosting
  - Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory (when provided)
  - Load limiting safety control by reducing compressor speed
  - High and low pressure transducers
  - Automatic reset of alarms before tripping
  - Alarms history

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Accessories

- **MODU-485BL:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:

**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrat-

ed GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;  
 • **AERSET:** accessory allows the automatic compensation of the operating set point of the unit to which it is connected, based on a 0-10V

- MODBUS input signal.
- MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.  
For complete control the following accessories are available:  
**SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.  
**SDHW: Domestic hot water temperature sensor.** Used with the storage tank to control the temperature of water produced.
- VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**
- PR3:** Simplified remote panel. Allows to perform the basic controls of the unit with alarm signals. It can be controlled with a shielded cable at a distance up to 150 m.
- DCPX:** Allows correct operation, in cooling mode, with outside temperatures lower than 20 °C and as low as -10 °C, in heating mode up to 42 °C.
- BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:  
- BS4KW230M (4 kW, 230V/1/50Hz)  
- BS6KW230M (6 kW, 230V/1/50Hz)  
- BS6KW400T (6 kW, 400V/3/50Hz)  
- BS9KW400T (9 kW, 400V/3/50Hz)
- VT:** Anti-vibration mounts.
- SAF:** Thermal accumulator for the instantaneous production of domestic hot water.  
**Refer to the dedicated "SAF" card for more information necessary for the correct**

**operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.**

#### Accessories factory fitted only

- BDX8/9:** Condensate drip tray with integrated electric heater controlled by the external air temperature sensor.
- KR:** Electric anti-freeze resistance for plate heat exchanger.
- KRB:** Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

#### COMPATIBILITY with VMF SYSTEM

For further information on system, refer to specific documentation.

ANLI_H	vers	071	075	080	101
MODU-485BL	All	•	•	•	•
AERWEB300	All	•	•	•	•
AERSET	All	•	•	•	•
MULTICONTROL	All	•	•	•	•
SPLW	All	•	•	•	•
SDHW	All	•	•	•	•
VMF-CRP	All	•	•	•	•
PR3	All	•	•	•	•
DCPX	(1) All	-	-	-	53
VT	All	9	9	9	15
BS4KW230M	230V/1	-	-	-	-
BS6KW230M	230V/1	-	-	-	-
BS6KW400T	400V/3N	•	•	•	•
BS9KW400T	400V/3N	•	•	•	•
SAF		•	•	•	•
<b>Accessories factory fitted only</b>					
BDX	All	9	9	9	-
KR	All	-	-	-	2
KRB	All	2	2	2	3

(1) The size ANLI071H÷ANLI080H Inverter fans are fitted as standard

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3,4	ANLI
5,6,7	Size 071-075-080-101
8	Model
H	Heat pump
9	Versions
°	Standard
X	With inverter pump
P	With on/off pump (Configuration available only for size 101)
10	Heat recovery
°	Without heat recovery
11	Coil
°	Aluminium
R	Copper
S	Tinned copper
V	In painted aluminium-copper (epoxy paint)
12	Field of use
°	Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
13	Evaporator
°	Standard
14	Power supply
T	400V/3N/50Hz

## Technical Data

ANLI - H			071	075	080	101	
12°C / 7°C	Cooling capacity	(1)	kW	13,66	16,35	18,51	28,77
	Total input power	(1)	kW	4,81	6,15	7,62	11,74
	EER	(1)		2,84	2,66	2,43	2,45
	ESEER	(1)		4,2	4,17	4,12	4,11
	Cooling Energy Class Eurovent	(1)		C	D	E	E
	Water flow rate	(1)	l/h	2357	2821	3193	4963
	Pressure drop	(1)	kPa	17	24	31	50
40°C / 45°C	Heating capacity	(2)	kW	15,16	17,6	20,12	31,7
	Total input power	(2)	kW	4,86	6,07	7,26	11,4
	COP	(2)		3,12	2,9	2,77	2,78
	Heating Energy Class Eurovent	(2)		B	C	D	D
	Water flow rate	(2)	l/h	2623	3045	3481	5484
	Pressure drop	(2)	kPa	17	24	31	59
	23°C / 18°C	Cooling capacity	(3)	kW	19,59	22,7	24,88
Total input power		(3)	kW	5,18	6,78	8,38	13,66
EER		(3)		3,78	3,35	2,97	3,06
Cooling Energy Class Eurovent		(3)		G	G	G	G
Water flow rate		(3)	l/h	3408	3939	4275	7301
Pressure drop		(3)	kPa	36	46	55	104
30°C / 35°C		Heating capacity	(4)	kW	16,18	18,57	21,03
	Total input power	(4)	kW	4,08	5,1	6,13	9,83
	COP	(4)		3,97	3,64	3,43	3,42
	Heating Energy Class Eurovent	(4)		D	E	F	F
	Water flow rate	(4)	l/h	2785	3199	3629	5764
	Pressure drop	(4)	kPa	20	27	35	67
	Performance under average climatic conditions (Average)						
	Pdesignh (55°C)	(5)		14	16	19	30
	SCOP	(5)		2,81	2,75	2,71	2,73
	ηs	(5)		110	107	105	106
	Efficiency Energy Class	(7)		A+	A+	A+	A+
	Pdesignh (35°C)	(6)		14	17	19	31
	SCOP	(6)		3,5	3,32	3,29	3,28
	ηs	(6)		137	130	129	128
	Efficiency Energy Class	(7)		A+	A+	A+	A+
ANLI - HX/HP*			071	075	080	101	
12°C / 7°C	Cooling capacity	(1)	kW	13,88	16,59	18,75	29,4
	Total input power	(1)	kW	4,66	5,99	7,44	11,71
	EER	(1)		2,98	2,77	2,52	2,51
	ESEER	(1)		4,65	4,65	4,59	4,4
	Cooling Energy Class Eurovent	(1)		B	C	D	D
	Water flow rate	(1)	l/h	2357	2821	3193	4963
	High static pressure	(1)	kPa	70,6	54,6	36,8	92
40°C / 45°C	Heating capacity	(2)	kW	15,03	17,45	19,97	31,03
	Total input power	(2)	kW	4,7	5,9	7,11	11,37
	COP	(2)		3,2	2,96	2,81	2,73
	Heating Energy Class Eurovent	(2)		A	C	C	D
	Water flow rate	(2)	l/h	2623	3045	3481	5484
	High static pressure	(2)	kPa	71	55	37	85
	23°C / 18°C	Cooling capacity	(3)	kW	19,82	22,88	25,16
Total input power		(3)	kW	5,02	6,65	8,25	13,85
EER		(3)		3,95	3,44	3,05	3,06
Cooling Energy Class Eurovent		(3)		A	D	F	F
Water flow rate		(3)	l/h	3408	3939	4275	7301
High static pressure		(3)	kPa	33,9	6,38	41,66	3,64
30°C / 35°C		Heating capacity	(4)	kW	15,95	18,34	20,79
	Total input power	(4)	kW	3,92	4,94	6,03	9,8
	COP	(4)		4,07	3,71	3,45	3,36
	Heating Energy Class Eurovent	(4)		A	D	E	F
	Water flow rate	(4)	l/h	2785	3199	3629	5764
	High static pressure	(4)	kPa	66,2	45,86	64,71	71,64
	Performance under average climatic conditions (Average)						
	Pdesignh (55°C)	(5)		13	16	18	29
	SCOP	(5)		2,81	2,76	2,71	2,56
	ηs	(5)		110	107	106	100
	Efficiency Energy Class	(7)		A+	A+	A+	A+
	Pdesignh (35°C)	(6)		14	16	19	29
	SCOP	(6)		3,61	3,43	3,4	3,22
	ηs	(6)		141	134	133	126
	Efficiency Energy Class	(7)		A+	A+	A+	A+

Date (14511:2013)

\* HP version with on / off pump only available for size 101

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Water evaporator 23°C/18°C, External air 35°C

(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.

(5) Efficiencies for average temperature Applications (55°C)

(6) Efficiencies for low temperature Applications (35°C)

(7) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

## Technical Data

			071	075	080	101			
						F1	F2	F3	
Electrical data									
Power supply	V/ph/Hz			400V/3N/50Hz					
Total input current (cooling)	(8)	H	A	7,30	9,40	11,40	16,30	11,30	8,30
	(8)	HX	A	8.29	10.44	12.46	17.98	12,70	9,70
Total input current (heating)	(9)	H	A	7,30	9,10	10,80	15,70	11,50	8,80
	(9)	HX	A	8.32	10.15	11.86	17.45	12,9	10,2
Total input current (heating)	(10)	H	A	6,10	7,60	9,00	13,57	9,72	7,53
	(10)	HX	A	7.16	8.68	10.15	15.21	10,91	8,73
Maximum current (FLA)	(11)	H	A	12,50	13,50	15,00	21,00	21,00	21,00
Starting current (LRA)	(11)	H	A	15,00	15,00	15,00	30,00	30,00	30,00
Compressor									
Compressors	Type/n°		scroll/1	scroll/1	scroll/1	scroll/1			
Circuit	n°		1	1	1	1			
Refrigerant	Type		R410A						
Heat exchanger system side									
Exchanger	Type/n°		Plate/1						
hydraulic connections (In/Out)	(in/out)	Ø	1"1/4						
Axial fans									
Fan	Type/n°		inverter/2	inverter/2	inverter/2	inverter/2			
Air flow rate (cooling)	m³/h		7500	7500	7500	13200			
Sound data (cooling mode)									
Sound power level	dB(A)		67,7	69,0	69,0	76,0			
Sound pressure level	dB(A)		36.7	38.0	38.0	44.0			

(8) Water evaporator 12°C/7°C, External air 35°C

(9) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(10) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.

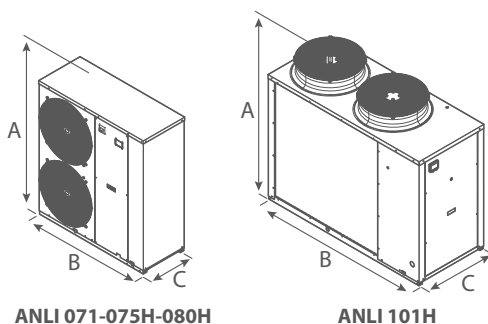
(11) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions and weight



ANLI				071	075	080	101
Height	(A)	mm	All	1281	1281	1281	1450
Width	(B)	mm	All	1150	1150	1150	1750
Depth	(C)	mm	All	450	450	450	750
Weight	H	kg		174	174	174	293
	HX	kg		184	184	184	308

# HSI

**Reversible inverter Air/Water split heat pump for Heating, cooling and the production of domestic hot water**  
**Heating Capacity from 5kW to 10kW**  
**Cooling Capacity from 8kW to 14kW**

**HFC**  
Refrigerant

**R410A**



AERMEC participates in the EUROVENT program: LCP  
 The products concerned appear on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

*Variable MultiFlow*  
**VMF**



HSI\_WT / WTS /  
 WTT / WTST  
 (Accessories)

- **PRODUCTION OF HOT WATER UP TO 60°C**
- **PRODUCTION OF DOMESTIC HOT WATER WITH OUTSIDE TEMPERATURES FROM -20°C TO 45°C**

## Features

**HSI is the new split inverter heat pump system, more efficient than normal boiler systems** as it guarantees heating, cooling and distribution of domestic hot water if combined with domestic hot water storage tanks (accessory), **efficiently and sustainably year-round.**

HSI has been designed to meet the needs of the new constructions market as well as the renovation market, **replacing or accompanying conventional boilers.**

The system can be installed in systems with any hydronic terminal, **and is already supplied with the main hydraulic components, thus facilitating final installation.**

### Operating limits

Working at full load up to -20°C outside air temperature in winter, and up to 48°C in summer. Technical hot water production up to 60°C (for more information see the technical documentation)

### Versions

**HSI\_C with HSI\_E Single phase split heat pump**  
**HSI\_CT with HSI\_ET Three phase split heat pump**

### Special features of the system:

#### HSI\_C outdoor unit:

- Rotary Dual Stage Inverter Compressor, with vapour injection inside the compressor, which makes it possible to reach high temperatures of produced water and increase performance at partial loads, with minor electrical consumption.

- Axial Fan Inverters designed for aerodynamic optimisation, allowing a reduction of noise level and an increase in the air flow rate efficiency at the same time.
- Base electric resistor kit to prevent the formation of ice while the heat pump is in operation
- Electronic thermostatic valve.
- Length of cooling lines up to 30m, maximum difference in level between outdoor and indoor units 15m

#### HSI\_E Hydronic Module Indoor Unit:

- High and low pressure transducers
- Integrated hydronic unit, which contains the main hydraulic components.
  - Inverter pump
  - Plate heat exchanger
  - Expansion tank
  - Safety valve
  - Flow switch
  - Pressure gauge
  - Water filter
  - Electric resistors
  - Room temperature probe provided
- **Adjustment.** The Remote-enabled Control Panel is integrated within the indoor unit and allows for the following:
  - Management of a 3-way valve (not provided)
  - Weekly programming with 5 time frames per day
  - Auto-Restart
  - Emergency function (in the event of a heating or domestic hot water mode malfunction, the electric resistors are activated)

- Rapid domestic hot water heating function (Quick Hot Water)
- Weather Dependent Mode function (Climatic Adjustment)
- Quiet function for silent functionality, programmable with a timer
- Condensation Control
- **In order to save electricity, the electric resistor contained inside the indoor unit is not enabled, but can be activated from the control panel.**
- When the anti-legionella function is set, the HSI unit heats the entire tank automatically once a week, up to a maximum temperature of 70°C, which kills the bacteria instantly.



## Accessories

### • HBI\_WT (230V~50Hz)

### • HBI\_WTT (400V 3N~50Hz)

- Domestic hot WATER storage tank of 200, 300 litres with main coil and back-up 3kW electrical resistor
- Magnesium Sacrificial Anode
- Stainless steel tank and coil
- Painted sheet metal outer casing and insulation material, thickness 50mm
- Internal installation

### • HBI\_WTS (230V~50Hz)

### • HBI\_WTST (400V 3N~50Hz)

- Domestic hot WATER storage tank of 200, 300 litres with main coil, supplementary coil and back-up 3kW electrical resistor
- Magnesium Sacrificial Anode
- Stainless steel tank and coil
- Painted sheet metal outer casing and insulation material, thickness 50mm
- Internal installation

## Compatibility of the domestic hot water storage tank with HSI

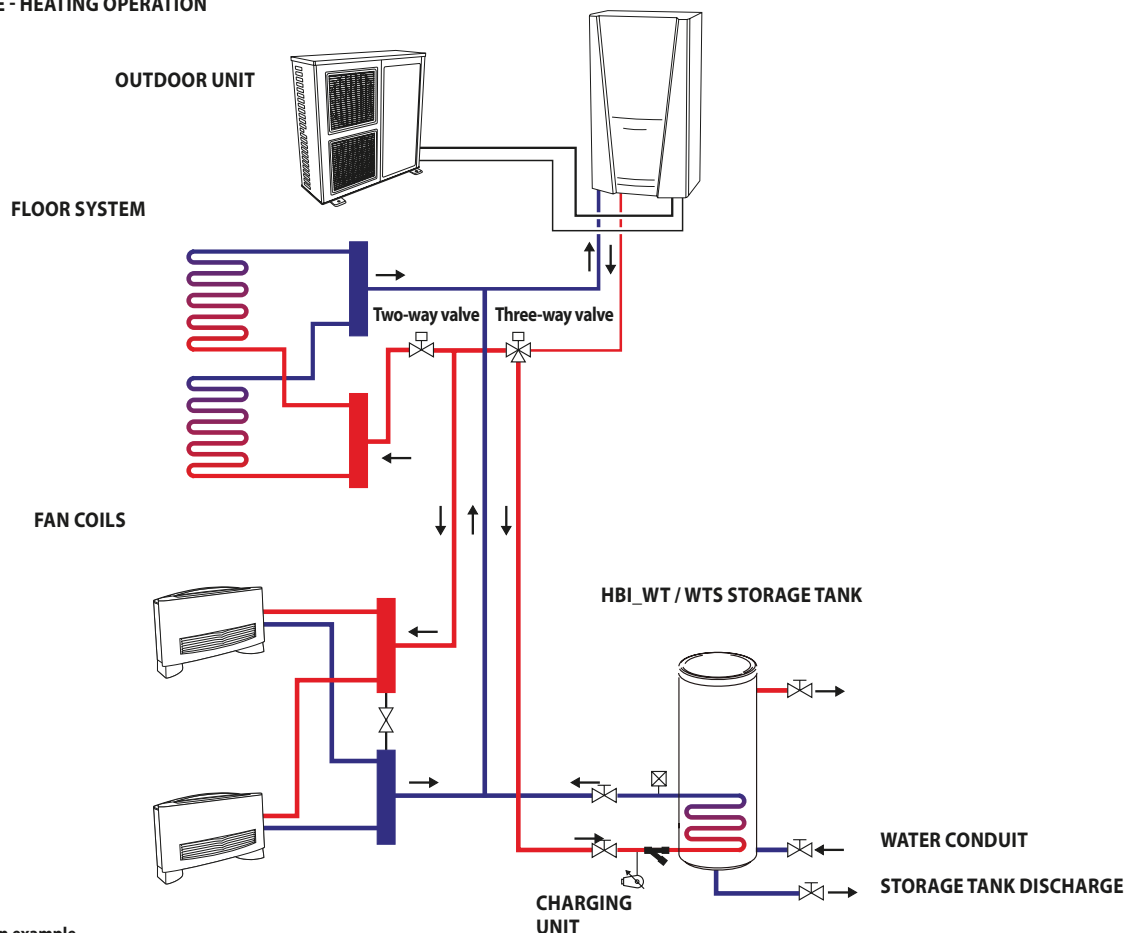
	HSI080C	HSI100C	HSI120CT	HSI140CT
MODEL 230V~50Hz	HSI080E	HSI100E	HSI120ET	HSI140ET
HBI200WT/WTS	•	•	-	-
HBI300WT/WTS	•	•	-	-
MODEL 400V 3N~50Hz	-	-	-	-
HBI200WTT/WTST	-	-	•	•
HBI300WTT/WTST	-	-	•	•

## Domestic hot water storage tank technical data

HSI_C/CT		HBI200WT/WTT	HBI200WTS/WTST	HBI300WT/WTT	HBI300WTS/WTST
Electrical Data		230V~50Hz - 400V 3~50Hz	230V~50Hz - 400V 3~50Hz	230V~50Hz - 400V 3~50Hz	230V~50Hz - 400V 3~50Hz
Capacity	l	200	200	300	300
Min. temperature setting	* °C			40	
Max. temperature setting	* °C			80	
Electric resistor					
Quantity	no.			1	
Power	kW			3	
Input Current	A			13	
Hydraulic connections					
Use (in/out)	Type/Ø			G 1/2" (Female)	
Main coil	Type/Ø			G 3/4" (Female)	
Supplementary coil (L)	Type/Ø	/	G 3/4" (Female)	/	G 3/4" (Female)
Supplementary coil technical data					
Length	m	/	10	/	10
Ø x Thickness	mm	/	22 x 0,8	/	22 x 0,8

\* With electric resistors without electric resistors 40 ÷ 50 °C

### SYSTEM EXAMPLE - HEATING OPERATION



The drawing is only an example

## Technical data

HSI_C/CT			80C	100C	120CT	140CT
HSI_E/ET			80E	100E	120ET	140ET
			V/ph/Hz	220~240V 50Hz	220~240V 50Hz	380-415V~3N 50Hz
12°C/7°C	Cooling power	(1) kW	5,5	6,9	9,6	10,0
	Absorbed power	(1) kW	1,85	2,34	3,02	3,22
	HSI_E/ET max. power absorbed	(1) kW	6,2	6,2	6,2	6,2
	EER	(1)	2,97	2,95	3,18	3,11
	ESEER	(1)	3,20	3,10	3,40	3,40
	Eurovent class - cold	(1)	A	B	A	A
	Water flow rate	(1) l/h	946	1187	1651	1720
40°C/45°C	Useful head	(1) kPa	15	15	15	15
	Thermal power	(2) kW	7,7	9,0	12,0	12,8
	Absorbed power	(2) kW	2,26	2,65	3,24	3,56
	COP	(2)	3,41	3,4	3,70	3,60
	Eurovent class - hot	(2)	A	A	A	A
	Water flow rate	(2) l/h	1324	1548	2064	2202
	Useful head	(2) kPa				
23°C/18°C	Cooling power	(3) kW	8,2	9,7	13,5	14,0
	Absorbed power	(3) kW	1,86	2,46	3,46	3,68
	EER	(3)	4,41	3,94	3,90	3,80
	Water flow rate	(3) l/h	1410	1668	2322	2408
	Useful head	(3) kPa	15	15	15	15
30°C/35°C	Thermal power	(4) kW	8,0	9,2	12,0	14,0
	Absorbed power	(4) kW	1,85	2,19	2,67	3,33
	COP	(4)	4,32	4,20	4,49	4,20
	Water flow rate	(4) l/h	1376	1582	2064	2408
	Useful head	(4) kPa	15	15	15	15
Performance in average climate conditions						
	Pdesignh	(5)	6,20	6,50	8,40	9,20
	SCOP	(5)	4,07	3,99	4,15	4,09
	ηs	(5)	160	157	163	161
	Efficiency Energy Class	(7)	A++	A++	A++	A++
	Pdesignh	(6)	5,60	5,60	10,00	11,00
	SCOP	(6)	3,15	3,15	3,42	3,40
	ηs	(6)	126	126	138	138
	Efficiency Energy Class	(7)	A++	A++	A++	A++

### Data (14511:2013)

- (1) Water evaporator 12°C/7°C, Outside air 35°C  
 (2) Water condenser 40°C/45°C, Outside air 7°C d.b./6°C w.b.  
 (3) Water evaporator 23°C/18°C, Outside air 35°C

- (4) Water condenser 30°C/35°C, Outside air 7°C d.b./6°C w.b.  
 (5) Efficiency in applications for low temperatures (35°C)  
 (6) Efficiency in applications for average temperatures (55°C)  
 (7) Energy efficiency class in accordance with regulation no.811/2013 Pdesignh ≤ 70kW

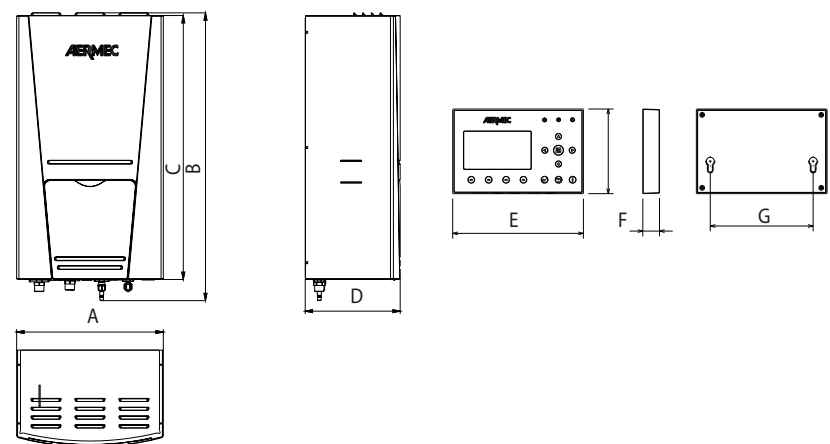
HSI_C/CT			80C	100C	120CT	140CT
HSI_E/ET			80E	100E	120ET	140ET
Electrical Data			220~240V 50Hz	220~240V 50Hz	380-415V~3N 50Hz	380-415V~3N 50Hz
Total current absorbed when cold	A		13,8	13,8	6,9	6,9
Total current absorbed when hot	A		16,4	16,4	8,2	8,2
HSI_C / CT outdoor unit						
Rotary Two Stage Inverter Compressor						
Compressors	no.			1		
Circuit	no.			1		
Coolant gas	Type			R410A		
Chiller Connections						
Gas line	mm(inch)			15,9(5/8")		
Liquid Line	mm(inch)			9,52(3/8")		
Axial Fans Inverter						
Fans	no.		1	1	2	2
Air flow rate, cooling			3511	3511	2917	7500
Sound Data						
sound power level	dB(A)		67	67	70	70
Sound pressure level	dB(A)		53	53	57	57
HSI_E / ET Indoor Unit						
System side heat exchanger - Plates						
Quantity	no.			1		
Circulator						
Quantity	no.			1		
Input Power	kW			105		
Expansion tank						
Quantity	no.			1		
Capacity	l			10		
Max pressure	bar			3		
Electric resistor						
Quantity	no.			1		
Power	kW			6		
Stages	no. (kW)		2 (3+3)	2 (3+3)	1 (6)	1 (6)
Connections						
Chiller Connections						
Gas line	mm(inch)			15,9(5/8")		
Liquid Line	mm(inch)			9,52(3/8")		
Hydraulic connections						
In	inch(type)			G1 (Male)		
Out	inch(type)			G1 (Male)		

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with that set forth by the Eurovent certification.

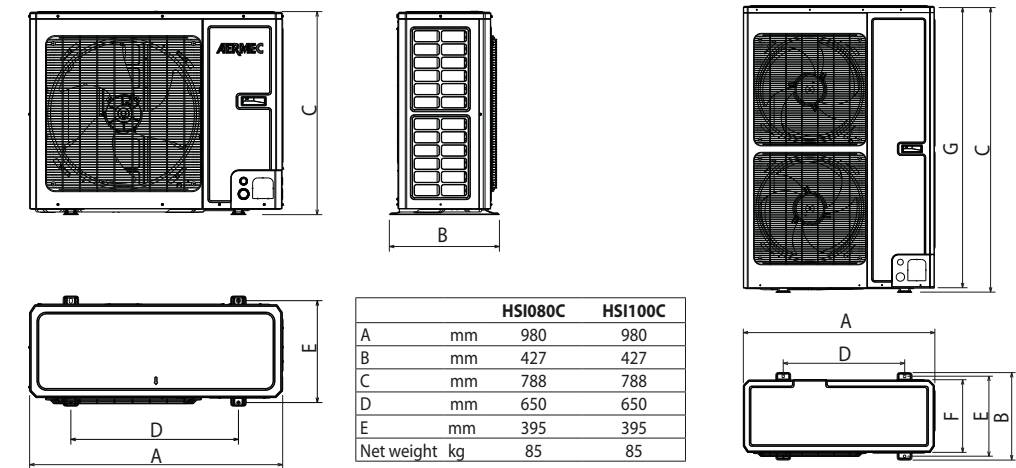
**Sound pressure (Cold operation)** Sound pressure measured in a free field, 10 m from the external surface of the unit (according to the UNI EN ISO 3744).

**N.B.:** For further information, please refer to the selection programme or the technical documentation available at [www.aermec.com](http://www.aermec.com)

Size data

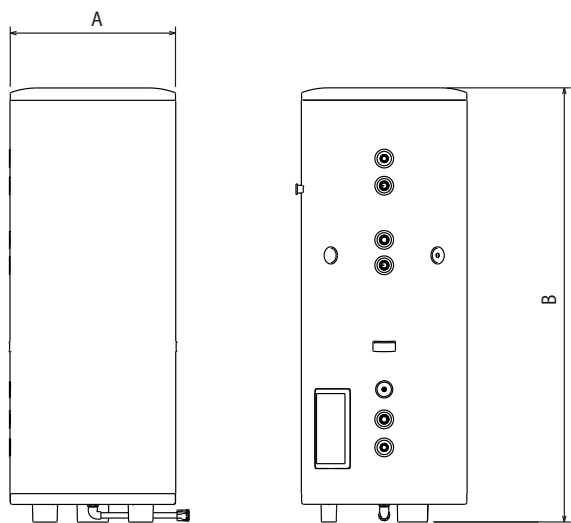


	HSI80C	HSI100C	HSI120C	HSI140C
A	mm	500		
B	mm	981		
C	mm	900		
D	mm	324		
E	mm	164,4		
F	mm	21		
G	mm	129,4		
Net weight	kg	56	56	58



	HSI080C	HSI100C
A	mm	980
B	mm	427
C	mm	788
D	mm	650
E	mm	395
Net weight	kg	85

	HSI120CT	HSI140CT
A	mm	900
B	mm	412
C	mm	1345
D	mm	572
E	mm	378
F	mm	340
G	mm	1326
Net weight	kg	126



	HBI200WT	HBI200WTS	HBI300WT	HBI300WTS	HBI200WTT	HBI200WTST	HBI300WTT	HBI300WTST
A	mm	540	540	620	620	540	540	620
B	mm	1595	1595	1620	1620	1595	1595	1620
Net weight	kg	68	71	82	87	68	71	87

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

Aermec S.p.A.  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# ANK

**Reversible heat pump Air/Water**  
**Optimized for heating, outdoor installation**  
**Axial fans, scroll compressor**  
**Cooling capacity 6,82 - 29,92kW**  
**Heating capacity 7,98 - 33,51kW**

**HFC**  
 Refrigerant  
**R410A**



Aermec participates in the EUROVENT programme: LCP  
 The products involved can be found at the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



Certificate Number MCS 0152  
 Heat Pumps Technology



- **VERSION WITH BUILT-IN HYDRONIC KIT**
- **PRODUCTION OF HOT WATER UP TO 60 °C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES DOWN TO -20 °C**
- **PRODUCTION OF HOT DOMESTIC WATER WITH EXTERNAL TEMPERATURES FROM -20 °C UP TO 42 °C**

## Characteristics

Reversible Heat pumps units

### Versions

**ANK H:** Heat pumps high efficiency, without hydronic kit

### Versions with hydronic kit

**ANK HP:** with standard pump

**ANK HA:** with buffer tank and standard pump

### Operational limits (1)

- max. external air temperature 46°C cooling mode
- max. Leaving water temperature 60°C

### heating mode

- High efficiency scroll compressors with low power input
- Electronic soft start to reduce starting current (standard for single phase versions)
- High efficiency heat exchangers with trace heating as standard
- flow switch as standard supply
- Water filter
- Axial flow fan units for extremely quiet operation

- Inverter axial flow fan units for heat pumps (ANK020H÷ANK085H)
- The hydronic kit includes:
  - Expansion tank
  - Safety valve
  - Pressure gauge
- Electronic controller (Modu\_control)
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Accessories

- **MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET**  
 The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory: AER485 or MODU-485A**
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;

**AERWEB300-6G:** Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.

- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system. For complete control the following accessories are available:

**SPLW: System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used

for temperature monitoring.

**SDHW: Domestic hot water temperature sensor.** Used with the storage tank to control the temperature of water produced.

**VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**

- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **DCPX:** an speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C; in heating mode in summer to produce DHW with external temperatures up to +42 °C.
- **BDX:** Condensate drip tray with integrated

- electric heater controlled by the external air temperature sensor.
- BSKW:** Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:
  - BS4KW230M (4 kW, 230V/1/50Hz)
  - BS6KW230M (6 kW, 230V/1/50Hz)
  - BS6KW400T (6 kW, 400V/3/50Hz)
  - BS9KW400T (9 kW, 400V/3/50Hz)
- VT:** Anti-vibration mounts.

- SAF:** Thermal accumulator for the instantaneous production of domestic hot water. **Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.**

#### Accessories factory fitted only

- DRE:** Electronic soft starter device reducing starting current by about 30%.
- KRB:** Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- BDX:** Condensate drip tray with electric heater

#### Compatibility with the VMF system

For further system information please refer to the specific documentation.

ANK	vers	020	030	040	045	050	085	100	150
MODU-485BL		*	*	*	*	*	*	*	*
AERSET		*	*	*	*	*	*	*	*
AERWEB300		*	*	*	*	*	*	*	*
MULTICONTROL		*	*	*	*	*	*	*	*
SPLW		*	*	*	*	*	*	*	*
SDHW		*	*	*	*	*	*	*	*
VMF-CRP		*	*	*	*	*	*	*	*
PR3		*	*	*	*	*	*	*	*
DCPX	(1)	-	-	-	-	-	-	53	53
BS4KW230M		*	*	*	*	-	-	-	-
BS6KW230M		*	*	*	*	-	-	-	-
BS6KW400T		-	-	-	-	*	*	*	*
BS9KW400T		-	-	-	-	*	*	*	*
VT	H/HP	9	9	9	9	9	9	15	15
	HA	15A	15A	15A	15A	15A	15A	15	15
SAF		*	*	*	*	*	*	*	*
<b>Accessories factory fitted only</b>									
DRE	(2)	*	*	*	*	*	*	•(x2)	•(x2)
KRB1		*	-	-	-	-	-	-	-
KRB2			*	*	*	*	*	-	-
KRB3		-	-	-	-	-	-	*	*
BDX		8	9	9	9	9	9	-	-

(1) The size up 020 to 085 Inverter fans are fitted as standard

(2) Only available for 400V/3N/50Hz power supply

(x2) n° the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

fields	Code
1,2,3	ANK
4,5,6	Size
	020-030-040-045-050-085-100-150
7	Model
	H Heat pump
8	Version
	° Standard
	P With pump
	A With buffer tank and pump
9	Execution
	° Standard
10	Coil fins
	° Aluminium
	R Copper
	S Tinned copper
	V Coated aluminium (epoxy paint)
11	Field of use
	° Standard (leaving water temperature down to 4°C)
	Z Low temperature (Low leaving liquid from 4°C down to up to 0°C)
	Y Low temperature (Low leaving liquid from 0°C down to -8°C)
12	Evaporator
	° Standard
13	Power supply
	M 230V/1/50Hz (from 020 to 045)
	° 400V/3N/50Hz

## Technical Data

ANK - H			020	030	040	045	020	030	040	045	050	085	100	150
		V/ph/Hz	230V	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	6,82	8,15	9,55	11,69	6,76	8,15	10,5	11,6	13	15,5	25,2	29,2
	Total input power	(1) kW	2,36	2,82	3,24	3,73	2,33	2,82	3,56	3,99	4,35	5,22	8,18	10,14
	EER	(1)	2,89	2,89	2,95	3,13	2,9	2,89	2,95	2,91	2,99	2,97	3,08	2,88
	ESEER	(1)	3,16	3,24	3,28	3,46	3,18	3,24	3,27	3,25	3,4	3,33	3,89	3,85
	Cooling Energy Class Eurovent	(1)	C	C	B	A	B	C	B	B	B	B	B	C
	Water flow rate	(1) l/h	1171	1400	1640	2008	1161	1400	1803	1992	2233	2662	4328	5015
40°C / 45°C	Pressure drop	(1) kPa	16	9	14	14	16	9	16	14	18	24	32	36
	Heating capacity	(2) kW	7,98	10,05	10,88	13,50	7,976	10,049	12,257	14,07	15,376	17,49	27,19	33,51
	Total input power	(2) kW	2,54	3,11	3,48	3,88	2,5	3,11	3,79	4,19	4,43	5,07	8,44	10,57
	COP	(2)	3,14	3,23	3,13	3,48	3,19	3,23	3,23	3,36	3,47	3,45	3,22	3,17
	Heating Energy Class Eurovent	(2)	B	A	B	A	B	A	A	A	A	A	A	B
	Water flow rate	(2) l/h	1387	1748	1892	2348	1387	1748	2132	2447	2675	3042	4729	5829
23°C / 18°C	Pressure drop	(2) kPa	24	16	19	19	24	15	23	21	25	30	37	47
	Cooling capacity	(3) kW	9,44	11,30	13,23	16,30	9,36	11,3	14,52	16,04	18,07	21,43	33,69	39,06
	Total input power	(3) kW	2,48	2,95	3,40	3,93	2,45	2,96	3,73	4,18	4,56	5,51	8,89	11,03
	EER	(3)	3,81	3,83	3,89	4,15	3,82	3,82	3,89	3,84	3,96	3,89	3,79	3,54
	Cooling Energy Class Eurovent	(3)	A	A	A	A	A	A	A	A	A	A	B	C
	Water flow rate	(3) l/h	1628	1949	2282	2812	1615	1949	2505	2767	3117	3697	5812	6738
30°C / 35°C	Pressure drop	(3) kPa	30	17	26	26	30	17	30	26	34	46	55	62
	Heating capacity	(4) kW	8,67	10,92	11,93	14,04	8,67	10,92	13,4	14,8	16,27	18,46	29,12	35,9
	Total input power	(4) kW	2,12	2,64	2,88	3,27	2,12	2,64	3,22	3,55	3,81	4,36	7,03	11,89
	COP	(4)	4,09	4,14	4,14	4,29	4,09	4,14	4,16	4,17	4,27	4,23	4,14	3,02
	Heating Energy Class Eurovent	(4)	A	A	A	A	A	A	A	A	A	A	A	G
	Water flow rate	(4) l/h	1502	1891	2066	2432	1502	1891	2321	2563	2818	3197	5044	6218
		Pressure drop	(4) kPa	28	19	23	22	28	19	28	24	29	34	55
Performance under average climatic conditions (Average)														
		Pdesignh	(5)	7	8	8	11	7	8	9	12	13	14	26
		SCOP	(5)	2,58	2,61	2,59	2,66	2,59	2,61	2,6	2,62	2,66	2,60	2,83
		ηs	(5)	100	102	101	103	101	102	101	102	103	101	110
		Efficiency Energy Class	(7)	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
		Pdesignh	(6)	7	9	10	12	7	9	11	13	14	16	32
		SCOP	(6)	3,32	3,41	3,43	3,54	3,37	3,41	3,49	3,48	3,59	3,41	3,91
		ηs	(6)	130	133	134	139	132	133	137	136	141	133	153
		Efficiency Energy Class	(7)	A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++

ANK - HP/HA			020	030	040	045	020	030	040	045	050	085	100	150
		V/ph/Hz	230V	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	6,91	8,25	9,67	11,85	6,84	8,25	10,61	11,74	13,22	15,68	25,78	29,92
	Total input power	(1) kW	2,43	2,89	3,30	3,89	2,41	2,89	3,61	4,12	4,5	5,35	8,13	10,21
	EER	(1)	2,84	2,85	2,93	3,05	2,84	2,85	2,94	2,85	2,94	2,93	3,17	2,93
	ESEER	(1)	3,28	3,37	3,45	3,47	3,3	3,35	3,44	3,26	3,45	3,41	4,08	3,93
	Cooling Energy Class Eurovent	(1)	C	C	B	B	C	C	B	C	B	B	A	B
	Water flow rate	(1) l/h	1187	1417	1661	2035	1175	1417	1822	2016	2271	2693	4428	5139
40°C / 45°C	High static pressure	(1) kPa	65	70	64	87	65	70	61	87	80	70	113	140
	Heating capacity	(2) kW	7,87	9,92	10,74	13,29	7,867	9,915	12,103	13,852	15,15	17,246	26,59	32,72
	Total input power	(2) kW	2,60	3,15	3,51	3,98	2,56	3,15	3,82	4,28	4,54	5,16	8,36	10,62
	COP	(2)	3,03	3,15	3,06	3,34	3,078	3,15	3,17	3,24	3,34	3,34	3,18	3,08
	Heating Energy Class Eurovent	(2)	B	B	B	A	B	B	B	A	A	A	B	B
	Water flow rate	(2) l/h	1368	1725	1868	2311	1368	1725	2105	2409	2635	3000	4625	5691
23°C / 18°C	High static pressure	(2) kPa	62	67	62	82	62	67	57	79	72	65	113	127
	Cooling capacity	(3) kW	9,57	11,43	13,38	16,26	9,48	11,42	14,67	16,26	18,3	21,69	34,41	39,96
	Total input power	(3) kW	2,51	3,00	3,43	4,27	2,48	3	3,76	4,27	4,66	5,59	8,73	11,04
	EER	(3)	3,81	3,81	3,90	3,81	3,82	3,81	3,9	3,81	3,93	3,88	3,94	3,62
	Cooling Energy Class Eurovent	(3)	A	A	A	A	A	A	A	A	A	A	A	C
	Water flow rate	(3) l/h	1651	1972	2308	2805	1635	1970	2531	2805	3157	3742	5936	6893
30°C / 35°C	High static pressure	(3) kPa	52	63	52	64	53	63	46	64	50	33	68	54
	Heating capacity	(4) kW	8,58	10,84	11,90	13,84	8,58	10,84	13,24	14,88	16,12	18,31	28,49	35,06
	Total input power	(4) kW	2,21	2,64	2,90	3,37	2,18	2,64	3,23	3,6	3,91	4,45	6,95	8,94
	COP	(4)	3,88	4,11	4,10	4,11	3,94	4,11	4,1	4,13	4,12	4,11	4,1	3,92
	Heating Energy Class Eurovent	(4)	C	A	A	A	B	A	A	A	A	A	A	B
	Water flow rate	(4) l/h	1486	1877	2061	2397	1486	1877	2293	2577	2792	3171	4934	6072
		High static pressure	(4) kPa	58	65	58	79	58	65	53	73	65	58	103
Performance under average climatic conditions (Average)														
		Pdesignh	(5)	7	8	8	11	7	8	9	11	12	14	26
		SCOP	(5)	2,58	2,62	2,59	2,64	2,6	2,62	2,61	2,61	2,65	2,61	2,63
		ηs	(5)	100	102	101	103	101	102	101	101	103	101	102
		Efficiency Energy Class	(7)	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
		Pdesignh	(6)	7	9	10	12	7	9	11	13	14	15	30
		SCOP	(6)	3,39	3,49	3,51	3,59	3,45	3,49	3,58	3,53	3,66	3,45	3,82
		ηs	(6)	133	137	137	141	135	137	140	138	143	135	150
		Efficiency Energy Class	(7)	A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A+

### Date (14511:2013)

- (1) Water evaporator 12°C/7°C, External air 35°C
- (2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
- (3) Water evaporator 23°C/18°C, External air 35°C
- (4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
- (5) Efficiencies for average temperature Applications (55°C)
- (6) Efficiencies for low temperature Applications (35°C)
- (7) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

## Technical Data

ANK - H			020	030	040	045
		V/ph/Hz	230V	230V	230V	230V
30°C / 35°C	Heating capacity	(8) kW	8,363	10,700	11,694	14,040
	Total input power	(8) kW	2,039	2,664	2,914	3,270
	COP	(8)	4,10	4,01	4,01	4,29

ANK - HP/HA			020	030	040	045
		V/ph/Hz	230V	230V	230V	230V
30°C / 35°C	Heating capacity	(8) kW	8,256	10,620	11,658	13,840
	Total input power	(8) kW	2,124	2,668	2,929	3,375
	COP	(8)	3,88	3,98	3,98	4,10

### Date MCS (14511:1008)

(8) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.

			020	030	040	045	050	085	100	150
Electrical data										
230V	Total input current (cooling)	(9) A	11,31	13,15	15,84	18,58	-	-	-	-
	Total input current (heating)	(9) A	12,29	14,55	17,12	19,18	-	-	-	-
	Maximum current (FLA)	(9) A	13,90	19,40	22,20	25,00	-	-	-	-
	Starting current (LRA)	(9)(10) A	45,00	45,00	45,00	45,00	-	-	-	-
400V	Total input current (cooling)	(9) A	4,3	5,6	7,1	7,7	8,7	10,7	17,0	20,4
	Total input current (heating)	(9) A	4,7	6,2	7,6	8,0	9,0	10,4	17,6	21,3
	Maximum current (FLA)	(9) A	6,1	7,7	9,1	10,6	11,8	12,30	21,70	25,80
	Starting current (LRA)	(9) A	39,7	40,3	54,3	61,3	71,3	91,3	72,6	104,7
Scroll Compressor										
Compressors		Type/n°	scroll/1	scroll/1	scroll/1	scroll/1	scroll/1	scroll/1	scroll/2	scroll/2
Circuit		n°	1	1	1	1	1	1	1	1
Refrigerant		Type	R410A							
Heat exchanger system side										
Exchanger		Type/n°	Plate/1							
hydraulic connections (In/Out)		Ø	1"1/4							
Axial fans										
Fan		Type/n°	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2	inverter/2	std/2	std/2
Air flow rate (cooling)			3500	8000	8000	7500	7500	7500	14500	14500
Sound data (cooling mode)										
Sound power level		dB(A)	68	70.5	70.5	70.5	70.5	70.5	77	78
Sound pressure level		dB(A)	37	39.5	39.5	39.5	39.5	39.5	45.5	46.5

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

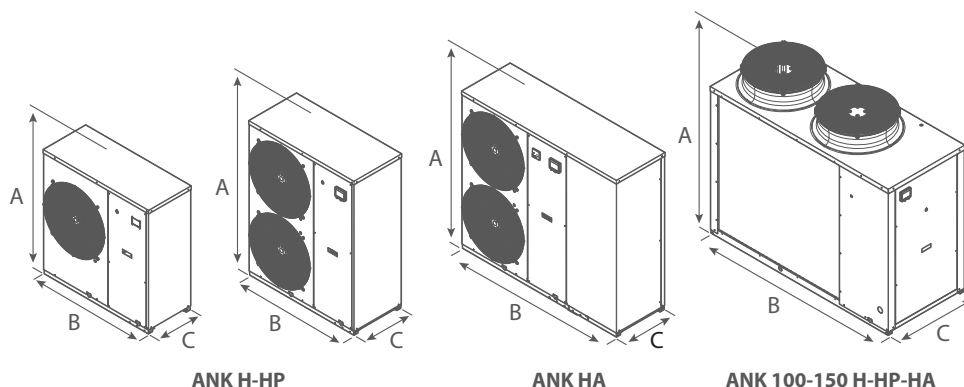
**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

(9) Unit standar configuration without hydronic kit

(10) Unit with soft-start

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



ANK				020	030	040	045	050	085	100	150
Height	(A)	All	mm	1028	1281	1281	1281	1281	1281	1450	1450
Width	(B)	H/HP	mm	1000	1000	1000	1000	1000	1000	1750	1750
		HA	mm	1358	1450	1450	1450	1450	1450	1750	1750
Length	(C)	All	mm	400	400	450	450	450	450	750	750
Weight		H	kg	118	149	152	165	172	174	296	341
		HP	kg	123	154	157	175	182	184	314	362
		HA	kg	160	211	214	232	238	241	364	412



HFC  
Refrigerant  
**R134a**



- **AIR COOLED HEAT PUMPS FOR HOT WATER PRODUCTION UP TO 60°C (UP TO 70°C WITH AUXILIARY ELECTRIC HEATER)**
- **APPLICATION RANGE: IN HEAT PUMP WITH AIR INTAKE FROM 8°C TO 35°C (EXTENDED FROM -15°C TO 45°C WITH THE AID OF THE AUXILIARY ELECTRIC HEATER)**
- **VERSIONS WITH 300 LITRES STORAGE TANK, OR WITH 1 OR 2 COILS TO BE USED TOGETHER WITH OTHER HEAT SOURCES (SOLAR PANELS, BOILER, HEAT PUMP)**
- **AUTOSTART FUNCTION FOR THE UNIT TO RESTART AUTOMATICALLY**

### Features

The SWP heat pumps use the thermal energy of air for production of domestic hot water. The process occurs in the most efficient and profitable way with average COPs > 3. The energy advantage of the SWP heat pumps also safeguards the environment, using most of its energy from solar radiation. Easy installation, silent and reliable functioning and very low maintenance requirements complete the benefits of this highly ecological and economic system.

#### Main features

- Steel tank with a double vitrification
- Condenser wrapped externally to the boiler with no scales and refrigerant-water fluid contamination
- Auxiliary coil to be used together with a boiler or solar panels
- Integrated NTC sensor to control the water temperature
- External air sensor for automatic connection of the electric heater with unfavourable temperatures in heat pump mode
- Anti-corrosion magnesium anode
- Hydraulic connections located at rear of unit
- Thermal insulation made of very thick expanded polyurethane foam with a silver grey RAL 2006 external covering (ABS)

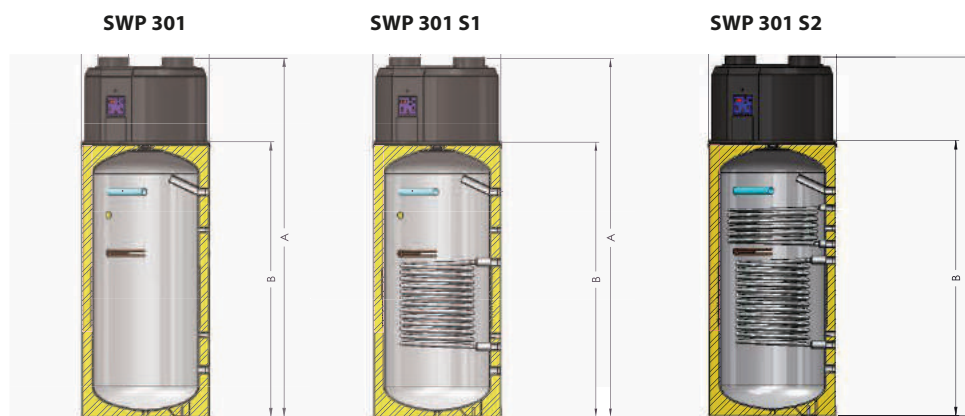
- Adjustable support feet
- Environmentally friendly refrigerant R134a
- Electric heater 1.5 kW 230V
- IEC power supply connector with insulating sheath
- High pressure safety devices
- Reciprocating hermetic compressor
- Radial fan with an adjustment of 40 % of the nominal flow rate
- Electronic controller:
  - water set point adjustment
  - external air temperature sensing
  - auto-diagnostic with display of the high/low pressure alarm, water overheating alarm and disconnected sensors alarm
  - record of run hours
  - control of minimum time between successive compressor starts
  - setting of parameters from the keyboard
  - control of electric heater in manual mode or in supplementary automatic mode for low external temperatures
  - periodic antibacterial treatment cycle to eliminate and prevent Legionella from developing

- user display to set the operating mode and various parameters with different levels of accessibility by means of passwords

#### Possible configurations

- Standard where the heat pump and the electric heater are the source of heat (SWP 301)
- With auxiliary coil to be used together with a boiler or solar panels (SWP 301 S1)
- With double auxiliary coils for simultaneous use of three heat sources (SWP 301 S2)

## Dimensional Data (mm)



## Technical Data

Mod.		SWP 301	SWP 301 S1	SWP 301 S2
Voltage - phases - frequency	V-Ph-Hz	230 - 1 - 50	230 - 1 - 50	230 - 1 - 50
Energy Efficiency Class	(1)	A	A	A
Heating capacity in heat pump mode	W	1950	1950	1950
Electric heater power	W	1500	1500	1500
Maximum water temperature	°C	60	60	60
Intake air operating range	°C	+8*/+35	+8*/+35	+8*/+35
Total input power	W	640	640	640
Max total input current in heat pump mode	A	3,9	3,9	3,9
Max total input current in electric heater mode	A	6,8	6,8	6,8
Compressor	n°	1	1	1
Fan	n°	1	1	1
Air flow rate	m³/h	450	450	450
Sound power level	dB(A)	60	60	60
Sound pressure (1m)	dB(A)	49	49	49
Max ducted length	m	10	10	10
Air ducts minimum diameter	mm	160	160	160
Working pressure	bar	6	6	6
DHW hot water flow connection		1"	1"	1"
DHW cold water return connection		1"	1"	1"
Heating system return connection		1"	1"	1"
Heating system flow connection		1"	1"	1"
Recirculation connection		1/2"	1/2"	1/2"
Alternative heat source 1 and 2 return connection		1"	1"	1"
Net weight	Kg	116	94	134
Gross weight	Kg	112	127	145
Storage tank capacity	L	273	268	265
Unit dimensions	Height mm	1.845		
	Width mm	660		
	Depth mm	660		
Packaging dimensions	Height mm	2.050		
	Width mm	770		
	Depth mm	770		

\* default settings

Sound pressure measured in free field at a distance of 10m from the front and directivity factor = 2. In accordance with ISO 3744.

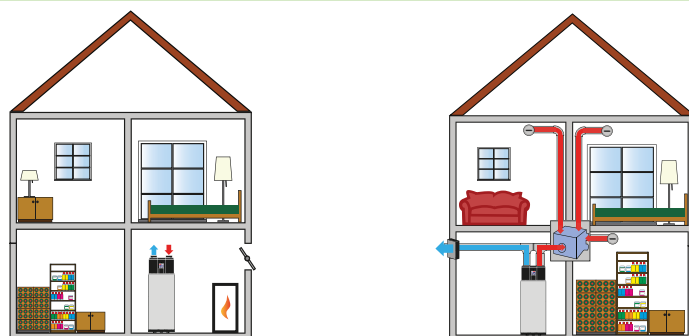
### Performances in accordance with EN 255-3

#### Heating:

##### Condenser

Inlet temperature	15 °C
Outlet temperature	50 °C
External air temperature	15 °C

## Installation Examples



Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## ANL 020/202 only cooling

HFC  
Refrigerant  
**R410A**



Aermec participates in the EUROVENT Certification Programme: LCP  
The products concerned appear in the EUROVENT site [www.eurovent-certification.com](http://www.eurovent-certification.com).

**Variable Multi Flow®**  
VMF

chillers, and condensing units  
Air/Water for outdoor installation  
Axial fan and scroll compressor:  
Cooling capacity 5,65÷43,70kW



## • STANDARD VERSION • VERSION WITH BUILT-IN HYDRONIC KIT

### Characteristics

Chillers for external installation for chilled water production with high performance scroll compressors and low electric absorption, axial fans, external copper coils with aluminum fins (from size 020 to 090) micro-channel (from size 102 to 202), plate heat exchangers. In the units (with desuperheater or total recovery) it is also possible to produce free-hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paints.

#### Versions

**ANL\_°:** Chillers without hydronic kit  
**ANL C:** Condensing unit

#### Versions with hydronic kit

**ANL\_P:** with standard pump  
**ANL\_N:** with high pump  
**ANL\_A:** with buffer tank and standard pump  
**ANL\_Q:** with buffer tank and high pump

#### Operational limits

Work at full load up to 46°C external air temperature, with options to produced water up to -10°C (for more details please refer to the technical documentation)

- High efficiency scroll compressors with low power input
- flow switch/ pressure switch as standard supply

- Water filter
- High efficiency heat exchangers
- Axial flow fan units for extremely quiet operation
- Possibility of integrated hydronic-kit, which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one high or low head pumps.
- Electronic controller (Modu\_control)

### Accessories

- **MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.  
For complete control the following accessories are

available:

**SPLW: System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

**VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**

- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **DCPX:** an speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C;  
**Standard for the version with desuperheater**
- **VT:** Anti-vibration mounts.

#### Accessories factory fitted only

- **DRE:** Electronic soft starter device reducing starting current by about 30%
- **KR:** Anti-freeze electric heater for the plate heat exchanger, not available for sizes 020A-HA to 040A-HA.
- **KRB:** Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- **RA:** Anti-freeze electric heater for the buffer tank.

#### Compatibility with the VMF system

**For further system information please refer to the specific documentation.**

Accessory compatibility

ANL	vers	020	025	030	040	050	070	080	090	102	152	202
MODU-485BL	All	*	*	*	*	*	*	*	*	*	*	*
AERWEB300	All	*	*	*	*	*	*	*	*	*	*	*
MULTICONTROL	All	*	*	*	*	*	*	*	*	*	*	*
SPLW	All	*	*	*	*	*	*	*	*	*	*	*
SDHW	All	*	*	*	*	*	*	*	*	*	*	*
VMF-CRP	All	*	*	*	*	*	*	*	*	*	*	*
PR3	All	*	*	*	*	*	*	*	*	*	*	*
DCPX	(1) All	50	50	50	50	50	50	50	50	52	52	52
VT	°P/°C/°N	9	9	9	9	9	9	9	9	15	15	15
	°A/°Q	9	9	9	9	15	15	15	15	15	15	15
Accessories factory fitted only												
DRE	(2)	-	-	-	-	5	5	5	5	5 x2	5 x2	5 x2
KR	°P	2	2	2	2	2	2	2	2	100	100	100
	°A	-	-	-	-	2	2	2	2	100	100	100
RA	°A/°Q	*	*	*	*	*	*	*	*	-	-	-
RA100		-	-	-	-	-	-	-	-	*	*	*

(1) Standard for the unit with desuperheater

(2) Only for power supply 400V/3N/50Hz

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field	Code
1,2,3	ANL
4,5,6	Size
	020-025-030-040-050-070-080-090-102-152-202
7	Model
	° Only cooling
8	Version
	° Standard
	P With pumps
	N With high pump (for size from 102 to 202)
	A With buffer tank and standard pump
	Q With buffer tank and high pump (for size from 050 to 202)
9	Heat recovery
	° Without recovery
	D With desuperheater (4)
10	Coil fin (5)
	° Aluminium
	R Copper
	S Tinned copper
	V Treated aluminium
11	Field of use
	° Standard (leaving water temperature down to 4°C)
	Z Low leaving liquid (from 4°C down to up to 0°C)
	Y Low leaving liquid (from 0°C down to -6°C)
12	Evaporator
	° Standatd
	C Condensing unit
13	Power supply
	M 230V/1/50Hz (for size from 020 to 040)
	° 400V/3N/50Hz (for size from 020 to 202)

(4) The desuperheater is available for sizes from 050 to 090 only with buffer tank, whilst sizes from 102 to 202 are available in all versions. Desuperheater is incompatible with the low temperature options, with the condensing unit version, and for dimensional reasons even with the option Q.

(5) Coil fin options

° Aluminium

**R e S Only cooling model:** only available for sizes 030-090; for sizes 020-025 treatment "R and S" is replaced by cataphoresis treatment

**V Cataphoresis treatment Cooling only available only for sizes 020 ÷ 025 and 102 ÷ 202;**

**Epoxy paint for models 020 ÷ 090**

## Technical Data

ANL			020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz	230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	5,66	6,15	7,44	9,53	13,31	16,39	20,35	22,14	26,34	32,69	42,6
	Total power input	(1) kW	1,88	2,05	2,52	3,32	4,12	4,98	6,48	6,79	8,06	10,31	13,53
	EER	(1)	3,01	3,00	2,95	2,87	3,23	3,29	3,14	3,26	3,27	3,17	3,15
	ESEER	(1)	3,43	3,43	3,40	3,33	3,74	3,82	3,65	3,71	3,85	3,99	3,94
	Cooling Energy Class Eurovent	(1)	B	B	B	C	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	979	1064	1287	1649	2303	2835	3521	3830	4557	5655	7370
	Pressure drop	(1) kPa	21	21	22	24	25	26	34	35	58	61	68

ANL - P / A			020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz	230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	5,77	6,28	7,59	9,70	13,51	16,63	20,62	22,42	26,93	33,48	43,49
	Total power input	(1) kW	1,81	1,96	2,41	3,20	4,01	4,83	6,3	6,6	8,07	10,53	13,79
	EER	(1)	3,19	3,20	3,15	3,03	3,37	3,44	3,27	3,40	3,34	3,18	3,15
	ESEER	(1)	3,50	3,54	3,55	3,48	3,85	3,97	3,8	3,95	3,96	3,94	3,82
	Cooling Energy Class Eurovent	(1)	A	A	A	B	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	979	1064	1287	1649	2303	2835	3521	3830	4568	5655	7385
	Useful head	(1) kPa	73	73	71	65	76	72	57	52	84	115	91

ANL - Q / N			020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz	230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	/	/	/	/	13,72	16,87	20,9	22,72	27,07	33,66	43,72
	Total power input	(1) kW	/	/	/	/	4,18	5,01	6,48	6,79	8,46	10,58	13,82
	EER	(1)	/	/	/	/	3,28	3,37	3,23	3,35	3,20	3,18	3,16
	ESEER	(1)	/	/	/	/	3,66	3,77	3,61	3,75	3,61	3,74	3,62
	Cooling Energy Class Eurovent	(1)	/	/	/	/	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	/	/	/	/	2303	2835	3521	3830	4568	5655	7385
	Useful head	(1) kPa	/	/	/	/	160	159	144	140	140	185	159

### Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

Q Version available from size 050 to 202

N Version available from size 102 to 202

ANL - C			020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz	230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2) kW	5,70	6,00	7,50	9,60	13,7	16,8	20,8	22,5	26,9	33,4	43,7
	Total power input	(2) kW	1,85	2,05	2,50	3,30	4,10	5,00	6,50	6,80	8,60	10,20	14,10
	EER	(2)	3,08	2,93	3,00	2,91	3,34	3,36	3,20	3,31	3,13	3,27	3,10

(2) Evaporating temperature 5°C, External air 35°C

			020	025	030	040	050	070	080	090	102	152	202	
Electrical data														
230V	Total input current (cooling)	(3)	A	6,4	7,3	8,1	10,7	-	-	-	-	-	-	
	Maximum current (FLA)	(3)	A	16,5	16,5	19,7	23,7	-	-	-	-	-	-	
	Starting current (LRA)	(3)	A	59,5	62,5	83,7	98,7	-	-	-	-	-	-	
400V	Total input current (cooling)	(3)	A	3,7	4,2	4,7	6,2	8,7	9,7	12,2	12,8	15,6	18,8	24,7
	Maximum current (FLA)	(3)	A	6,0	6,0	6,7	8,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
	Starting current (LRA)	(3)	A	26,5	32,5	35,7	48,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
Scroll Compressor														
Compressors			n°	1	1	1	1	1	1	1	1	2	2	2
Circuit			n°	1	1	1	1	1	1	1	1	1	1	1
Refrigerant			Type	R410A										
Heat exchanger system side														
Exchanger			Type/n°	Plate/1										
hydraulic connections (In/Out)			Ø	1"1/4										
Connection of Condensing unit C														
Gas line			Ø	15.88	15.88	15.88	15.88	22	22	22	28	28	28	28
Liquid line			Ø	9.52	9.52	12.7	12.7	15.88	15.88	15.88	15.88	15.88	15.88	15.88
Axial fans														
Fan			Type/n°	std/1	std/1	std/1	std/1	std/2	std/2	std/2	std/2	std/2	std/2	std/2
Air flow rate (cooling)			m³/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data (cooling)														
Sound power level			dB(A)	61	61	68	68	69	69	69	68	76	77	78
Sound pressure level			dB(A)	30	30	37	37	38	38	38	37	44	45	46

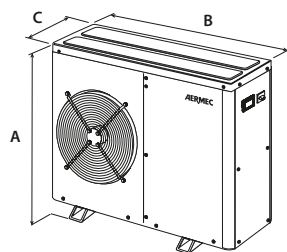
(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

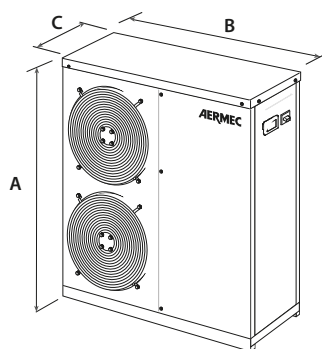
**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

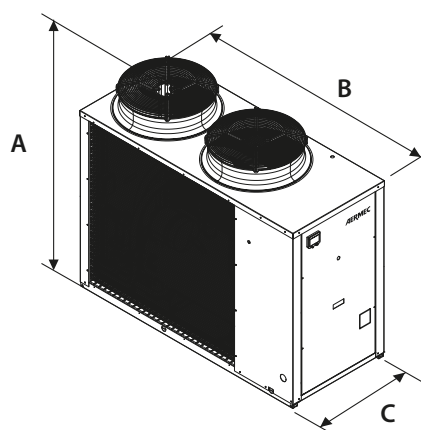
## Dimensions (mm)



020 ÷ 040



050 ÷ 090



102 - 152 - 202

			020	025	030	040	050	070	080	090	102	152	202
<b>ANL ° - P - C</b>													
Height	A	mm	868		1000			1252				1450	
Width	B	mm	900		900			1124				1750	
Length (*with feet)	C	mm	310/354*		310/354*			384/428*				750	
<b>ANL - A</b>													
Height	A	mm	868		1015			1281				1450	
Width	B	mm	1124		1124			1165				1750	
Length (*with feet)	C	mm	384/428*		384/428*			550				750	
<b>ANL - Q</b>													
Height	A	mm	/		/			1281				1450	
Width	B	mm	/		/			1165				1750	
Length (*with feet)	C	mm	/		/			550				750	
<b>Weight</b>													
ANL °	kg		75		86		120	120	120	156	270	293	329
ANL - P	kg		77		91		127	127	163	163	288	314	350
ANL - A	kg		99		103		147	147	147	183	338	364	400
ANL - Q e N	kg		/		/		151	151	151	187	338	364	400
ANL - C	kg		70		78		110	110	110	141	270	293	329



# ANL 020/202

**Reversible Heat Pumps**  
**Air/Water for outdoor installation**  
**Axial fan and scroll compressor:**  
**Cooling capacity 5,65 - 41,47kW**  
**Heating capacity 6,27 - 44,90kW**

HFC  
Refrigerant  
**R410A**



Aermec participates in the EUROVENT Certification Programme: LCP  
 The products concerned appear in the EUROVENT site  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

*Variable Multi Flow*

VMF



- **STANDARD VERSION**
- **VERSION WITH BUILT-IN HYDRONIC KIT**
- **PRODUCTION OF HOT DOMESTIC WATER (D.H.W.)**

## Characteristics

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorption scroll compressors, axial fans, external copper coils with aluminium fins, system-side plate heat exchanger.

In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water.

The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

### Versions

**ANL\_H:** Heat pumps without hydronic kit

### Versions with hydronic kit

**ANL\_HP:** with standard pump

**ANL\_HN:** with high pump

**ANL\_HA:** with buffer tank and standard pump

**ANL\_HQ:** with buffer tank and high pump

### Range of operations

full load up to 46 °C ambient air temperature with the possibility to produce chilled water down to -10 °C in cooling mode (for more details refer to the technical documentation)

- High efficiency scroll compressors with low

power input

- flow switch/ pressure switch as standard supply
- Water filter
- High efficiency heat exchangers
- Axial flow fan units for extremely quiet operation
- Inverter axial flow fan units for heat pumps from size 030 to 090
- Possibility of integrated hydronic kit which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one pumps high or low head.
- Electronic controller (Modu\_control)

## Accessories

- **MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.  
 For complete control the following accessories are

available:

**SPLW: System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/ return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

**SDHW: Domestic hot water temperature sensor.** Used with the storage tank to control the temperature of water produced.

**VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**

- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **DCPX:** an speed controller allowing operation in cooling mode within an external temperature range from +20 °C to -10 °C;  
**Standard for the version with desuperheater**

- **BDX:** Condensate drip.
- **VT:** Anti-vibration mounts.

### Accessories factory fitted only

- **DRE:** Electronic soft starter device reducing starting current by about 30%
- **KR:** Anti-freeze electric heater for the plate heat exchanger, not available for sizes 020A-HA to 040A-HA.
- **KRB:** Electric anti-freeze heater for the base. Prevents the formation of ice on the base.
- **RA:** Anti-freeze electric heater for the buffer tank.

### Compatibility with the VMF system

**For further system information please refer to the specific documentation.**



ANL - H	vers	020	025	030	040	050	070	080	090	102	152	202
MODU-485BL	All	*	*	*	*	*	*	*	*	*	*	*
AERWEB300	All	*	*	*	*	*	*	*	*	*	*	*
MULTICONTROL	All	*	*	*	*	*	*	*	*	*	*	*
SPLW	All	*	*	*	*	*	*	*	*	*	*	*
SDHW	All	*	*	*	*	*	*	*	*	*	*	*
VMF-CRP	All	*	*	*	*	*	*	*	*	*	*	*
PR3	All	*	*	*	*	*	*	*	*	*	*	*
DCPX	(1) H	51	51	*	*	*	*	*	*	53	53	53
BDX	H / HP	5	5	5	5	5	5	5	5	-	-	-
	HA	5	5	5	5	6	6	6	6	-	-	-
VT	H/HP	9	9	9	9	9	9	9	9	15	15	15
	HA	9	9	9	9	15	15	15	15	15	15	15
<b>Accessories factory fitted only</b>												
DRE	(2)	-	-	-	-	5	5	5	5	5 x2	5 x2	5 x2
KR	H/HP	2	2	2	2	2	2	2	2	100	100	100
	HA	-	-	-	-	2	2	2	2	100	100	100
KRB3	All	-	-	-	-	-	-	-	-	*	*	*
RA	HA	*	*	*	*	*	*	*	*	-	-	-
RA100		-	-	-	-	-	-	-	-	*	*	*

(1) Standard for the unit with desuperheater

\* Size with Inverter fans

(2) Only for power supply 400V/3N/50Hz

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field	Code
1,2,3	ANL
4,5,6	Size
	020-025-030-040-050-070-080-090-102-152-202
7	Model
	H Heat pump
8	Version
	° Standard
	P With pumps
	N With high pump (for size from 102 to 202)
	A With buffer tank and standard pump
	Q With buffer tank and high pump (for size from 050 to 202)
9	Heat recovery
	° Without recovery
	D With desuperheater (4)
10	Coil fin (5)
	° Aluminium
	R Copper
	S Tinned copper
	V Treated aluminium
11	Field of use
	° Standard (leaving water temperature down to 4°C)
12	Evaporator
	° Standard
	C Condensing unit
13	Power supply
	M 230V/1/50Hz (for size from 020 to 040)
	° 400V/3N/50Hz

(4) The desuperheater is available for sizes from 050 to 090 only with buffer tank, whilst sizes from 102 to 202 are available in all versions. Desuperheater is incompatible with the dimensional reasons even with the option Q.

### (5) Coil fin options

° Aluminium

Re S Models in heat pump: only for sizes 030H-202H

V Cataphoresis treatment for sizes 020H ÷ 025H

Epoxy paint for models with heat pump 020H ÷ 202H

## Technical Data

ANL - H			020	025	030	040	050	070	080	090	102	152	202
		V/ph/Hz	230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	5,64	6,14	7,43	9,52	13,29	16,37	20,32	22,06	25,75	31,71	40,58
	Total input power	(1) kW	1,89	2,06	2,53	3,33	4,14	5,01	6,51	6,87	8,82	10,48	14,28
	EER	(1)	2,98	2,98	2,94	2,86	3,21	3,27	3,12	3,21	2,92	3,03	2,84
	ESEER	(1)	3,43	3,43	3,40	3,33	3,74	3,82	3,12	3,71	3,85	3,99	3,94
	Cooling Energy Class Eurovent	(1)	B	B	B	C	A	A	A	A	B	B	C
	Water flow rate	(1) l/h	979	1065	1288	1649	2301	2839	3521	3830	4465	5496	7031
40°C / 45°C	Pressure drop	(1) kPa	30	31	32	30	34	35	44	60	55	57	62
	Heating capacity	(2) kW	6,26	7,07	8,49	10,70	14,12	17,44	22,4	24,46	29,31	35,35	45,78
	Total input power	(2) kW	1,97	2,19	2,71	3,28	4,42	5,04	6,5	7,12	8,88	10,45	13,76
	COP	(2)	3,18	3,23	3,13	3,26	3,19	3,46	3,45	3,44	3,30	3,38	3,33
	Heating Energy Class Eurovent	(2)	B	A	B	A	B	A	A	A	A	A	A
	Water flow rate	(2) l/h	1078	1217	1460	1843	2434	3007	3859	4207	5041	6084	7878
23°C / 18°C	Pressure drop	(2) kPa	33	37	37	34	34	36	48	65	69	68	78
	Cooling capacity	(3) kW	6,81	7,39	8,94	11,46	16,05	19,71	24,5	26,46	31,48	38,64	49,08
	Total input power	(3) kW	1,99	2,16	2,65	3,48	4,34	5,24	6,82	7,2	9,24	10,98	14,94
	EER	(3)	3,42	3,42	3,37	3,29	3,70	3,76	3,59	3,68	3,41	3,52	3,29
	Cooling Energy Class Eurovent	(3)	D	D	D	E	B	C	B	D	C	E	E
	Water flow rate	(3) l/h	1188	1289	1560	1996	2796	3431	4270	4622	5492	6737	8556
30°C / 35°C	Pressure drop	(3) kPa	43	44	46	43	49	50	63	85	81	83	89
	Heating capacity	(4) kW	6,54	7,39	8,86	11,17	14,74	18,21	23,89	25,54	30,6	36,91	47,8
	Total input power	(4) kW	1,71	1,90	2,34	2,92	3,81	4,5	5,82	6,37	8,04	9,52	12,58
	COP	(4)	3,82	3,89	3,79	3,83	3,87	4,05	4,10	4,01	3,81	3,88	3,80
	Heating Energy Class Eurovent	(4)	C	C	C	C	C	B	A	B	C	C	C
	Water flow rate	(4) l/h	1121	1265	1518	1916	2530	3127	4012	4374	5241	6326	8191
		Pressure drop	(4) kPa	36	41	41	37	37	40	53	72	76	86
Performance under average climatic conditions (Average)													
		Pdesignh	(5)	6	7	8	10	13	16	21	23	28	43
		SCOP	(5)	3,33	3,38	3,30	3,33	3,43	3,55	3,55	3,53	3,65	3,83
		ηs	(5)	130	132	129	130	134	139	139	138	143	150
		Efficiency Energy Class	(6)	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++

ANL - HP/HA			020	025	030	040	050	070	080	090	102	152	202
V/ph/Hz			230V-400V	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	5,77	6,28	7,59	9,70	13,51	16,63	20,62	22,42	26,34	32,49	41,47
	Total input power	(1) kW	1,81	1,96	2,41	3,20	4,01	4,84	6,3	6,6	8,83	10,7	14,52
	EER	(1)	3,19	3,20	3,15	3,03	3,37	3,44	3,27	3,40	2,98	3,04	2,86
	ESEER	(1)	3,50	3,54	3,55	3,48	3,37	3,97	3,8	3,95	3,96	3,94	3,82
	Cooling Energy Class Eurovent	(1)	A	A	A	B	A	A	A	A	B	B	C
	Water flow rate	(1) l/h	979	1065	1288	1649	2301	2884	3521	3830	4465	5496	7031
40°C / 45°C	High static pressure	(1) kPa	73	73	71	65	76	72	57	52	88	124	106
	Heating capacity	(2) kW	6,13	6,92	8,31	10,50	13,89	17,18	22,1	24,1	28,7	34,56	44,9
	Total input power	(2) kW	1,88	2,08	2,58	3,13	4,28	4,87	6,29	6,85	8,9	10,71	14,07
	COP	(2)	3,26	3,33	3,22	3,35	3,25	3,53	3,51	3,52	3,22	3,23	3,19
	Heating Energy Class Eurovent	(2)	A	A	A	A	A	A	A	A	A	A	B
	Water flow rate	(2) l/h	1078	1217	1460	1843	2434	3007	3859	4207	5041	6084	7878
23°C / 18°C	High static pressure	(2) kPa	69	67	65	58	72	67	46	40	64	94	68
	Cooling capacity	(3) kW	6,96	7,55	9,13	11,67	16,32	20,01	24,84	26,86	32,11	39,43	49,93
	Total input power	(3) kW	1,87	2,03	2,50	3,32	4,16	5,03	6,58	6,9	9,27	11,3	15,34
	EER	(3)	3,72	3,72	3,65	3,52	3,92	3,98	3,78	3,89	3,46	3,49	3,25
	Cooling Energy Class Eurovent	(3)	B	B	B	C	A	A	B	A	D	D	E
	Water flow rate	(3) l/h	1188	1289	1560	1996	2796	3431	4270	4622	5492	6737	8556
30°C / 35°C	High static pressure	(3) kPa	64	64	61	52	60	55	33	27	47	63	40
	Heating capacity	(4) kW	6,40	7,23	8,68	10,97	14,5	17,93	23,08	25,18	29,99	36,13	46,95
	Total input power	(4) kW	1,60	1,78	2,20	2,77	3,66	4,31	5,6	6,1	8,07	9,81	12,94
	COP	(4)	4,00	4,06	3,95	3,96	3,96	4,16	4,12	4,13	3,72	3,68	3,63
	Heating Energy Class Eurovent	(4)	B	A	B	B	B	A	A	A	D	D	D
	Water flow rate	(4) l/h	1121	1265	1518	1916	2530	3127	4012	4374	5241	6326	8191
Performance under average climatic conditions (Average)	High static pressure	(4) kPa	66	64	62	54	68	63	40	33	53	78	49
	Pdesignh	(5)	6	6	8	10	13	16	21	23	27	32	42
	SCOP	(5)	3,40	3,48	3,40	3,40	3,48	3,63	3,63	3,60	3,58	3,58	3,60
	ηs	(5)	133	136	133	133	136	142	142	141	140	140	141
	Efficiency Energy Class	(6)	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+

### Date (14511:2013)

- (1) Water evaporator 12°C/7°C, External air 35°C
- (2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
- (3) Water evaporator 23°C/18°C, External air 35°C
- (4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
- (5) Efficiencies for low temperature Applications (35°C)
- (6) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

**Note: For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)**

## Technical Data

			020	025	030	040	050	070	080	090	102	152	202	
Electrical data														
230V	Total input current (cooling)	(7)	A	6,4	7,3	8,1	10,7	-	-	-	-	-	-	
	Total input current (heating)	(7)	A	6,6	7,6	9,3	11,8	-	-	-	-	-	-	
	Maximum current (FLA)	(7)	A	17,5	17,5	20,7	24,7	-	-	-	-	-	-	
	Starting current (LRA)	(7)	A	59,5	62,5	83,7	98,7	-	-	-	-	-	-	
400V	Total input current (cooling)	(7)	A	3,7	4,2	4,7	6,2	8,7	9,7	12,2	12,8	15,6	18,8	24,7
	Total input current (heating)	(7)	A	3,8	4,4	5,4	6,8	9,5	10,3	12,9	13,8	17,0	19,0	25,0
	Maximum current (FLA)	(7)	A	7,0	7,0	7,7	9,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
	Starting current (LRA)	(7)	A	27,5	33,5	36,7	49,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
Scroll Compressor														
Compressors	n°	1	1	1	1	1	1	1	1	1	2	2	2	
Circuit	n°	1	1	1	1	1	1	1	1	1	1	1	1	
Refrigerant	Type	R410A												
Heat exchanger system side														
Exchanger	Type/n°	Plate/1												
hydraulic connections (In/Out)	Ø	1"1/4												
Axial fans														
Fan	Type/n°	std/1	std/1	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2	inverter/2	inverter/2	std/2	std/2	std/2	
Air flow rate (cooling)		2500	2500	3500	3500	7200	7200	7300	7200	7200	14000	13500	13500	
Sound data (cooling mode)														
Sound power level	dB(A)	61	61	68	68	69	69	69	68	68	76	77	78	
Sound pressure level	dB(A)	30	30	37	37	38	38	38	38	37	44	45	46	

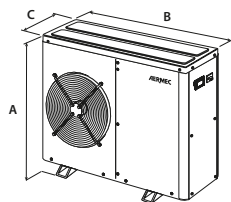
(7) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

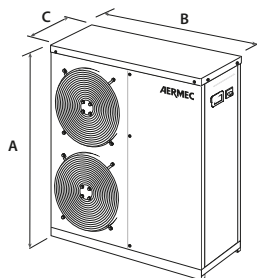
**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

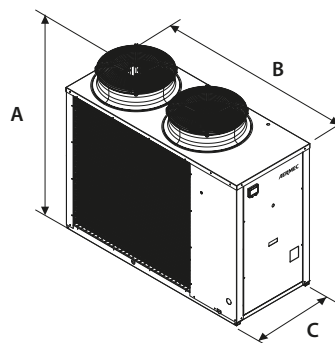
## Dimensions (mm)



020 - 040



050 - 090



102 - 152 - 202

			020	025	030	040	050	070	080	090	102	152	202
<b>ANL H - HP</b>													
Height	A	mm	868		1000				1252			1450	
Width	B	mm	900		900				1124			1750	
Length (*with feet)	C	mm	310/354*		310/354*				384/428*			750	
<b>ANL - HA</b>													
Height	A	mm	868		1015				1281			1450	
Width	B	mm	1124		1124				1165			1750	
Length (*with feet)	C	mm	384/428*		384/428*				550			750	
<b>ANL - HQ</b>													
Height	A	mm	/		/				1281			1450	
Width	B	mm	/		/				1165			1750	
Length (*with feet)	C	mm	/		/				550			750	
<b>Weight</b>													
ANL H	kg		75		86		120	120	156	156	295	322	358
ANL - HP	kg		77		91		127	150	163	163	313	343	379
ANL - HA	kg		99		103		147	150	183	183	363	393	429
ANL - HQ e HN	kg		/		/		151	151	187	187	380	410	450

## ANL 290/650 cooling only

HFC  
Refrigerant  
**R410A**



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



**VMF**

**Chillers**  
**Air/Water outdoor installation**  
**Axial fans and scroll compressor**  
**Cooling capacity 55÷133kW**



## • STANDARD VERSION • VERSION WITH INTEGRATED HYDRONIC MODULE

### Features

Cooling versions and condensing unit

#### Versions

**ANL\_°** standard versions.

**ANL\_L** Low noise versions.

**ANL\_C** Condensing versions

**ANL\_CL** Condensing low noise versions

- High efficiency scroll compressors.
- Flow switch as standard supply.
- Water filter.

- Low and high pressure transducers as standard supply.
- High efficiency exchangers.
- Axial fans with low sound level.
- Possibility of integrated hydronic module user side:
  - Buffer tank and pumps, or pumps only
  - Expansion tank
  - Safety valve

- Pressure gauge
- Drain valve
- Electronic controller (Modu\_control).
- Microprocessor control system
- Metallic protective cabinet with anti-corrosion polyester paint.

### Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET**: accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.  
**Mandatory accessory:**  
- **AER485** or **MODU-485BL**
- **AERWEB300**: The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:  
**AERWEB300-6**: Web server to monitor and remote control maximum 6 units on RS485 network;  
**AERWEB300-18**: Web server to monitor and remote control maximum 18 units on RS485 network;  
**AERWEB300-6G**: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;  
**AERWEB300-18G**: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.

- **MULTICONTROL**: Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system. For complete control the following accessories are available:
- **SPLW**: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
- **DCPX**: Low temperature device for correct cooling mode operation with ambient temperatures from less than 10 °C down to -10 °C.
- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **GP**: Protects the external coil from blows.
- **VT**: Anti-vibration mounts.

#### Accessories can only be applied in the factory

- **RIF**: Current rephaser. Connected in parallel to the motor, it allows a reduction of the absorbed current about 10%.
- **DRE**: Current soft starter device (about 26% for two-circuit-units).  
Available only with power supply 400V/3N.

#### COMPATIBILITY WITH THE VMF SYSTEM.

**For further system information please refer to the specific documentation.**

## Accessory compatibility

ANL		290	300	340	400	580	620	650
MODU-485BL	Alls	*	*	*	*	*	*	*
AERWEB300	Alls	*	*	*	*	*	*	*
MULTICONTROL	Alls	*	*	*	*	*	*	*
SPLW	Alls	*	*	*	*	*	*	*
AERSET	Alls	*	*	*	*	*	*	*
PR3	Alls	*	*	*	*	*	*	*
DCPX (version with standard fan "on" Standard)	°	-	-	-	-	83	83	83
	L	inverter fans				standard	standard	standard
DCPX (version with high static pressure fan "M")	°	-	-	-	-	83	83	83
	L	62	62	62	63	83	83	83
GP	Alls	GP3	GP3	GP3	GP3	GP2 (x2)	GP2 (x2)	GP2 (x2)
VT (00)	Alls	17	17	17	17	11	11	11
VT (P1-P2-P3-P4)	Alls	13	13	13	17	11	11	11
VT (01-02-03-04)	Alls	13	13	13	13	11	11	11
<b>Accessories can only be applied in the factory</b>								
RIF	Alls	32	32	42	42	50	72	51

(1) Standard for chillers with desuperheater

(1) standard for version "L" only for size 580÷650

(2) Only for power supply 400V/3N/50Hz

(x2) indicates the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

Field	Description	
1,2,3	<b>ANL</b>	
4,5,6	<b>Size</b>	290-300-340-400-580-620-650
7	<b>Field of use</b>	<ul style="list-style-type: none"> <li>° Standard with produced water down to +4 °C</li> </ul>
Y	Low leaving water up to -6 °C (3)	
X	Electronic thermostatic valve temperature of water produced up to +4°C (for different temperatures please contact us) (3)	
8	<b>Model</b>	<ul style="list-style-type: none"> <li>° Only cooling</li> </ul>
C	Condensing unit	
9	<b>Heat recovery</b>	<ul style="list-style-type: none"> <li>° Without heat recovery</li> </ul>
D	Desuperheater	
10	<b>Version</b>	<ul style="list-style-type: none"> <li>° Standard</li> </ul>
L	Low noise versions	
11	<b>Coil</b>	<ul style="list-style-type: none"> <li>° Aluminium</li> </ul>
R	Copper	
S	Tinned copper	
V	Coated	
12	<b>fans (4)</b>	<ul style="list-style-type: none"> <li>° Standard</li> </ul>
M	increased	
J	Inverter	
13	<b>Power supply</b>	<ul style="list-style-type: none"> <li>° 400V/3N/50Hz</li> </ul>
14	<b>Soft-start</b>	<ul style="list-style-type: none"> <li>° Without Soft Start</li> </ul>
S	With Soft Start	
15-16	<b>Integrated hydronic module user side</b>	
00	Without hydronic module	
01	n° 1 Low head pump and buffer tank	
02	n° 2 Low head pumps and buffer tank	
03	n° 1 high head pump and buffer tank	
04	n° 2 high head pumps and buffer tank	
P1	n° 1 Low head pump	
P2	n° 2 Low head pumps	
P3	n° 1 high head pump	
P4	n° 2 high head pumps	

(2) Sizes up 290 to 400 are available only in the low noise mode "L"

(3) "D" option is not compatible with "Y" valve.

(4) On / off fan Standard, standard sizes up 580 to 650

On / off fan increased, option available for all sizes

Fans Inverter, standard sizes from 290 to 400, with no static pressure

Fans Inverter, option for sizes from 580 to 650 with static pressure

## Technical data

ANL - °			290	300	340	400	580	620	650
			V/ph/Hz	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	/	/	/	/	110,79	124,06	132,91
	Total power input	(1) kW	/	/	/	/	40,36	47,13	54,4
	EER	(1)	/	/	/	/	2,75	2,63	2,44
	ESEER	(1)	/	/	/	/	4,03	3,99	3,72
	Cooling Energy Class Eurovent	(1)	/	/	/	/	C	D	E
	Water flow rate	(1) l/h	/	/	/	/	19176	21439	22978
	Pressure drop	(1) kPa	/	/	/	/	81	61	70

ANL - L			290	300	340	400	580	620	650
			V/ph/Hz	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	54,52	59,80	65,84	76,05	104,05	114,3	120,97
	Total power input	(1) kW	20,96	22,99	25,19	29,88	43,69	51,23	59,44
	EER	(1)	2,60	2,60	2,61	2,55	2,38	2,23	2,04
	ESEER	(1)	3,83	3,83	3,93	3,83	3,71	3,68	3,52
	Cooling Energy Class Eurovent	(1)	D	D	D	D	E	F	G
	Water flow rate	(1) l/h	9408	10323	11371	13134	18001	19742	20901
	Pressure drop	(1) kPa	28	33	40	41	72	52	58

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

ANL - C°			290	300	340	400	580	620	650
			V/ph/Hz	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2) kW	/	/	/	/	115,40	128,10	138,40
	Total power input	(2) kW	/	/	/	/	39,60	46,20	53,40
	EER	(2)	/	/	/	/	2,91	2,77	2,59

ANL - CL			290	300	340	400	580	620	650
			V/ph/Hz	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2) kW	54,90	60,50	69,90	77,10	108,00	117,30	126,30
	Total power input	(2) kW	20,70	22,50	24,80	29,40	39,50	47,30	54,90
	EER	(2)	2,65	2,69	2,82	2,62	2,73	2,48	2,30

(2) Evaporating temperature 5°C, External air 35°C

			290	300	340	400	580	620	650	
Electrical data										
Total input currente (cooling)	°	(3)	A	/	/	/	/	70	82	94
Maximum current (FLA)	°	(3)	A	/	/	/	/	85	99	112
Starting current (LRA)	°	(3)	A	/	/	/	/	262	308	320
Starting current with soft start			A	/	/	/	/	198	230	242
Total input currente (cooling)	L	(3)	A	38	41	46	55	74	87	101
Maximum current (FLA)	L	(3)	A	49	53	58	69	85	99	112
Starting current (LRA)	L	(3)	A	130	131	162	183	262	308	320
Starting current with soft start			A	99	101	123	140	198	230	242
Scroll Compressor										
Compressors / Circuit			n°	2/1	2/1	2/1	2/1	2/1	2/1	2/1
Refrigerant			Type	R410A						
Heat exchanger system side										
Exchanger			Type/n°	Plate/1						
hydraulic connections (In/Out)			Ø	2"½						
Connection of Condensing unit C										
Gas line			Ø	28	35	35	42	42	42	54
Liquid line			Ø	22	22	22	28	28	28	35
Axial fans										
Fan			Type/n°	Inverter/4	Inverter/4	Inverter/4	Inverter/6	std/2	std/2	std/2
Air flow rate (cooling)				15600	15600	15600	20700	35900	35900	35900
Sound data (cooling)										
Sound power level	°		dB(A)	/	/	/	/	82	82	83
Sound pressure level	°		dB(A)	/	/	/	/	45	45	46
Sound power level	L		dB(A)	72	72	74	75	77	77	78
Sound pressure level	L		dB(A)	41	41	42	43	45	45	46

(3) Unit standar configuration without hydronic kit

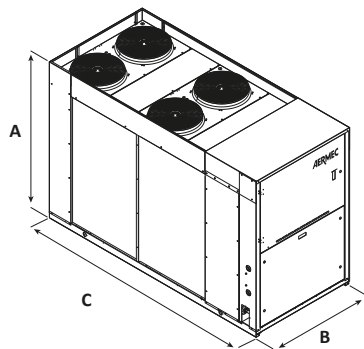
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

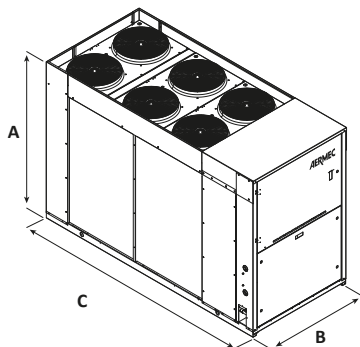
**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

Dimensions (mm)

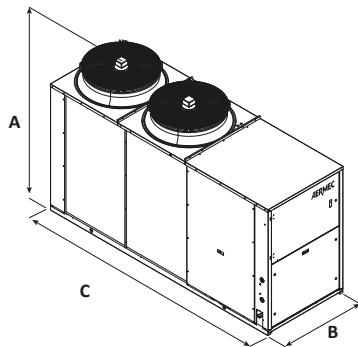
ANL°/L/C 290-300-340



ANL°/L/C 400



ANL°/L/C 580-620-650



				ANL 290	ANL 300	ANL 340	ANL 400	ANL 580	ANL 620	ANL 650
Height	A	mm	°/L/C	1605	1605	1605	1605	1875	1875	1875
Width	B	mm	°/L/C	1100	1100	1100	1100	1100	1100	1100
Depth	C	mm	°/L/C	2450	2450	2450	2450	3200	3200	3200
Empty weight		Kg	°/L	628	636	648	666	854	925	970



## ANL 290/650 heat pump

HFC  
Refrigerant  
**R410A**



Aermec  
participate in the EUROVENT program: LCP  
the products are present on the site  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

**Reversible Heat Pumps**  
**Air/Water for outdoor installation**  
**Axial fan and scroll compressor:**  
**Cooling capacity 53÷128kW**  
**Heating capacity 61÷142kW**

*Variable Multi Flow*

**VMF**



- **STANDARD VERSION**
- **LOW NOISE VERSION**
- **VERSION WITH BUILT-IN HYDRONIC KIT**

### Features

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorption scroll compressors, axial fans, external copper coils with aluminium fins, system-side plate heat exchanger.

In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water.

The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

#### Versions

**ANL\_H:** Heat pump

**ANL\_HL:** Heat pump low noise

#### Range of operations

Work up to 44°C of outdoor air temperature at full load, depending on size.

For further details refer to the selection software/ technical documentation.

- High efficiency scroll compressors
- Flow switch as standard supply.
- Low and high pressure transducers as standard supply.
- High efficiency exchangers.
- Electronic controller (Modu\_control).
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is

available in different configurations with one or two pumps, with different static pressures available

- Microprocessor control system
  - Control from the entering water temperature, with the possibility of selecting control of the leaving water temperature
  - Summer condensation control with 0-10V modulating signal depending on pressure, compensated according to the outside air temperature (with DCPX accessory)
  - Intelligent defrosting to decay of pressure.
  - Automatic rotation of compressors.
  - Load limiting safety control.
  - Automatic reset of alarms before total block.
  - Alarm history.

### Accessories

- **MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERSET:** accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal.

#### Mandatory accessory:

- **AER485 or MODU-485BL**

- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:

**AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;

**AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;

**AERWEB300-6G:** Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.

- **MULTICONTROL:** Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system.

For complete control the following accessories are available:

- **SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
- **DCPX:** Low temperature device for correct cooling mode operation with ambient temperatures from less than 10 °C down to -10 °C.

- **PR3:** Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **GP:** Protects the external coil from blows.
- **VT:** Anti-vibration mounts.

#### Accessories can only be applied in the factory

- **RIF:** Current rephaser. Connected in parallel to the motor, it allows a reduction of the absorbed current about 10%.
- **DRE:** Current soft starter device (about 26% for two-circuit-units). Available only with power supply 400V/3N.

#### COMPATIBILITY WITH THE VMF SYSTEM.

For further system information please refer to the specific documentation.

## Accessory compatibility

ANL_H		290	300	340	400	580	620	650
MODU-485BL	all	*	*	*	*	*	*	*
AERWEB-300	all	*	*	*	*	*	*	*
MULTICONTROL	all	*	*	*	*	*	*	*
SPLW	all	*	*	*	*	*	*	*
AERSET	all	*	*	*	*	*	*	*
PR3	all	*	*	*	*	*	*	*
DCPX (version with standard fan "O")	H	-	-	-	83	83	83	83
	HL	inverter fans			standard	standard	standard	standard
DCPX (version increased fan "M")	H	-	-	-	-	-	-	-
	HL	62	62	63	-	-	-	-
GP	all	GP3	GP3	GP3	GP2 (x2)	GP2 (x2)	GP2 (x2)	GP2 (x2)
VT (00)	all	17	17	17	11	11	11	11
VT (P1-P2-P3-P4)	all	13	13	13	11	11	11	11
VT (01-02-03-04)	all	13	13	13	11	11	11	11
<b>Accessories can only be applied in the factory</b>								
RIF	all	32	32	42	42	50	72	51

(1) Standard with desuperheater

(1) Standard for the size up 400HL to 650HL

(x2) indicates the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

### Campo Description

#### 1,2,3 ANL

#### 4,5,6 Size

290-300-340-400-580-620-650 (2)

#### 7 Field of use

° Standard with produced water down to +4 °C

X Electronic thermostatic valve temperature of water produced up to +4°C (for different temperatures please contact us)

#### 8 Model

H Heat pump

#### 9 Heat recovery

° Without heat recovery

D desuperheater (3)

#### 10 Versions

° Standard

L Low noise

#### 11 Coil

° Aluminium

R Copper

S Tinned copper

V Coated

#### 12 Fans (4)

° Standard

M Increased

J Inverter

#### 13 Power supply

° 400V/3N/50 Hz

#### 14 Soft-start

° Without Soft Start

S With Soft Start

#### 15-16 Integrated hydronic kit

00 Without pump or storage tank

01 Low head pump and buffer tank

02 Single and standby low head pump and buffer tank

03 Single high head pump and buffer tank

04 Single and standby high head pump and buffer tank

P1 Low head pump

P2 Single and standby low head pump

P3 Single high head pump

P4 Single and standby high head pump

(2) Sizes up 290 to 340 are available only in the Low noise mode "L".

(3) The desuperheater can be used exclusively in the cold operation

(4) On / off fan Standard, standard sizes up 400 to 650

Fans on/off Increased, options only for size up ANL290HL to 340HL

Fans Inverter, standard sizes from 290 to 340, with no static pressure

Fans Inverter, option for sizes from 400 to 650 with static pressure

## Technical data

ANL - H			290	300	340	400	580	620	650
		V/ph/Hz	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	/	/	/	82,5	105,8	121,9	128,8
	Total input power	(1) kW	/	/	/	28,98	41,54	43,29	48,42
	EER	(1)	/	/	/	2,85	2,55	2,82	2,66
	ESEER	(1)	/	/	/	4,06	3,74	4,06	3,93
	Cooling Energy Class Eurovent	(1)	/	/	/	C	D	C	D
	Water flow rate	(1) l/h	/	/	/	14226	21125	21055	22257
40°C / 45°C	Pressure drop	(1) kPa	/	/	/	29	55	53	61
	Heating capacity	(2) kW	/	/	/	90,02	122,24	133,56	141,49
	Total input power	(2) kW	/	/	/	28,45	38,74	42,08	46,01
	COP	(2)	/	/	/	3,16	3,16	3,17	3,08
	Heating Energy Class Eurovent	(2)	/	/	/	B	B	B	B
	Water flow rate	(2) l/h	/	/	/	15577	21125	23077	24433
23°C / 18°C	Pressure drop	(2) kPa	/	/	/	33	55	61	70
	Cooling capacity	(3) kW	/	/	/	111,72	143,26	165	174,25
	Total input power	(3) kW	/	/	/	32,14	46,11	48,21	53,98
	EER	(3)	/	/	/	3,48	3,11	3,42	3,23
	Cooling Energy Class Eurovent	(3)	/	/	/	D	F	D	E
	Water flow rate	(3) l/h	/	/	/	16121	24879	28682	30319
30°C / 35°C	Pressure drop	(3) kPa	/	/	/	36	80	96	110
	Heating capacity	(4) kW	/	/	/	93,52	127	138,77	147
	Total input power	(4) kW	/	/	/	23,67	32,28	35,06	38,34
	COP	(4)	/	/	/	3,95	3,93	3,96	3,83
	Heating Energy Class Eurovent	(4)	/	/	/	B	B	B	C
	Water flow rate	(4) l/h	/	/	/	16121	21862	23883	25286
Performance under average climatic conditions (Average)						36	60	66	77
Pdesignh		(5)	/	/	/	76	103	113	119
SCOP		(5)	/	/	/	3,53	3,53	3,55	3,48
ηs		(5)	/	/	/	138	138	139	136

ANL - HL			290	300	340	400	580	620	650
		V/ph/Hz	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	52,97	57,25	65,66	77,98	100,73	116,16	122,25
	Total input power	(1) kW	20,91	23,86	24,52	30,58	44,6	46,47	51,87
	EER	(1)	2,53	2,40	2,68	2,55	2,26	2,50	2,36
	ESEER	(1)	3,50	3,54	3,55	3,48	3,37	3,97	3,8
	Cooling Energy Class Eurovent	(1)	D	E	D	D	F	E	E
	Water flow rate	(1) l/h	9138	9873	11331	13446	17385	20058	21118
40°C / 45°C	Pressure drop	(1) kPa	26	24	31	26	40	48	55
	Heating capacity	(2) kW	60,81	66,42	72,64	90,02	122,24	133,56	141,49
	Total input power	(2) kW	18,82	20,61	22,37	28,45	38,74	42,08	46,01
	COP	(2)	3,23	3,22	3,25	3,16	3,16	3,17	3,08
	Heating Energy Class Eurovent	(2)	A	A	A	B	B	B	B
	Water flow rate	(2) l/h	10518	11493	12564	15577	21125	23077	2443
23°C / 18°C	Pressure drop	(2) kPa	32	29	35	33	55	61	70
	Cooling capacity	(3) kW	71,74	77,56	88,93	109,05	140,83	162,32	170,74
	Total input power	(3) kW	23,18	26,43	27,21	32,61	47,59	49,74	55,58
	EER	(3)	3,09	2,93	3,27	3,34	2,96	3,26	3,07
	Cooling Energy Class Eurovent	(3)	F	G	E	E	G	E	F
	Water flow rate	(3) l/h	12448	13450	15435	18911	24452	28211	29701
30°C / 35°C	Pressure drop	(3) kPa	47	42	56	51	77	93	106
	Heating capacity	(4) kW	63,18	69,01	75,47	93,52	127	138,77	147
	Total input power	(4) kW	15,67	17,15	118,62	23,67	32,28	35,06	38,34
	COP	(4)	4,03	4,02	0,64	3,95	3,93	3,96	3,83
	Heating Energy Class Eurovent	(4)	B	B	G	B	B	B	C
	Water flow rate	(4) l/h	10885	11895	13002	16121	21862	23883	25286
Prestazioni in condizioni climatiche medie (Average)						36	60	66	77
Pdesignh		(5)	51	56	61	76	103	113	119
SCOP		(5)	3,58	3,60	3,60	3,53	3,53	3,55	3,48
ηs		(5)	140	141	141	138	138	139	136
Efficiency Energy Class		(6)	A+	A+	A+	/	/	/	/

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Water evaporator 23°C/18°C, External air 35°C

(4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.

(5) Efficiencies for low temperature Applications (35°C)

(6) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

ANL - H				290	300	340	400	580	620	650
Electrical data										
Total input corrente (cooling)	H	(7)	A	/	/	/	52	68	70	77
Total input corrente (heating)	H	(7)	A	/	/	/	51	63	68	74
Maximum current (FLA)	H	(7)	A	/	/	/	65	98	107	116
Starting current (LRA)	H	(7)	A	/	/	/	181	264	264	273
Total input corrente (cooling)	HL	(7)	A	37	41	45	54	72	75	83
Total input corrente (heating)	HL	(7)	A	34	36	42	51	63	68	74
Maximum current (FLA)	HL	(7)	A	44	47	54	65	98	107	116
Starting current (LRA)	HL	(7)	A	126	128	160	181	264	264	273
Scroll Compressor										
Compressors / Circuit	n°			2/1	2/1	2/1	2/1	2/1	2/1	2/1
Refrigerant	Type			R410A						
Heat exchanger system side										
Exchanger	Type/n°			Plate/1						
hydraulic connections (In/Out)	Ø			2"½						
Axial fans										
Fan	Type/n°			Inverter/4	Inverter/4	Inverter/6	std/2	std/2	std/2	std/2
Air flow rate (cooling)	H	m³/h		/	/	/	45800	45800	44600	44600
	HL	m³/h		17600	17600	17200	32060	32060	31220	31220
Sound data (cooling mode)										
Sound power level	H	dB(A)		/	/	/	89.4	89.4	89.4	89.4
Sound pressure level	H	dB(A)		/	/	/	57.6	67.6	57.6	57.6
Sound power level	HL	dB(A)		73.4	74.1	74.3	83.4	84.0	84.6	85.2
Sound pressure level	HL	dB(A)		41.7	42.4	42.6	51.5	52.1	52.7	53.4

(7) Unit standar configuration without hydronic kit

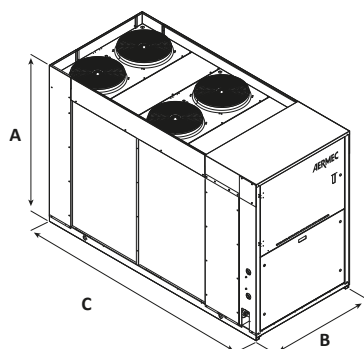
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

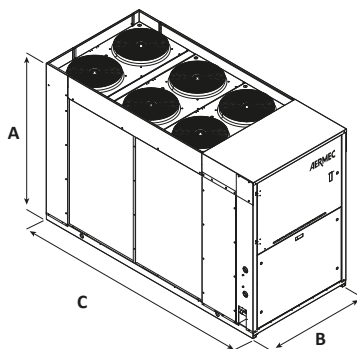
**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

ANL-H 290-300



ANL-H 340



Mod. ANL_H			290	300	340	400	580	620	650
Height	A	mm	1605	1605	1605	1875	1875	1875	1875
Width	B	mm	1100	1100	1100	1100	1100	1100	1100
Length	C	mm	2450	2450	2450	2950	3200	3200	3200
Weight "00"		Kg	655	660	684	808	902	1008	1053
Weight operation "00"		Kg	673	679	703	832	926	1033	1078

**NRK**  
**090/0150**  
**heat pump**

**Reversible heat pump**  
**Air/Water for outside installations**  
**Axial fans and scroll compressors**  
**Cooling capacity 18 - 31 kW**  
**Heating capacity 21 - 35 kW**

**HFC**  
Refrigerant  
**R410A**

*Variable Multi Flow*  
**VMF**



AERMEC participates in the EUROVENT program: LCP  
The products concerned appear on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **MAXIMUM PROCESSED WATER TEMPERATURE 65°C**
- **HEATING OPERATION WITH OUTDOOR TEMPERATURES DOWN TO -20 °C**
- **OPTIMISED FOR HEATING**

## Characteristics

Reversible outdoor heating pump for air-conditioning systems where, in addition to cooling rooms, high temperature hot water is required for heating or for the production of hot domestic water.

Special attention was paid to the winter mode, and thanks to the technical solutions adopted the working range was improved with respect to standard heat pumps, guaranteeing a production of hot water up to 65°C and an operation down to an outside air temperature of -20°C.

All the units are equipped with vapour-injection scroll compressors, axial fans, external copper batteries with aluminium fins, and a plate heat exchanger on the side. The base, the structure and the panels are made of steel treated with polyester anti-corrosion paints. Ready for immediate installation, the heat pumps can be supplied with all the components needed for being placed in any type of system, either new or replacing other heat generators, from a system with low temperature floor heating or fan coils, to the more usual radiators.

They are also available with an integrated hydronic unit, thereby simplifying also the final installation because it just need to be connected electrically and hydraulically to be able to start it.

### Versions

**NRK\_H** High efficiency

#### Operating limits

Working at full load up to -20°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 65°C (for more information see the technical documentation)

- Single circuit.
- Vapour-injection scroll compressor with high capacity and low electrical power consumption.
- Heat exchangers optimised to exploit the excellent heat transfer characteristics of the R410A.
- Flow switch fitted as standard.
- Water filter.
- High and low pressure transducers fitted as standard.

- Option of an integrated hydronic unit, which contains the main hydraulic components; it is available in various configurations with single pump, low or high head, with or without inertial accumulation.
- Device for low outside air temperatures, with continual regulation of the fans that provides improved operation of the unit under any working conditions, and greater acoustic comfort.
- Electrical resistance antifreeze kit for base.
- Micro-processor adjustment Electronic board (modu control).
  - Control of the outlet water temperature, with the possibility of selecting the control of the inlet water.
  - Summer condensation control with 0-10V modulating signal depending on pressure, compensated according to the outside air temperature.
  - Intelligent defrosting with pressure decay.

## Accessories

- **MODU-485BL:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** The AERWEB device provides the remote control of a chiller via a standard PC using an ethernet connection and a standard browser; 4 models are available:
  - AERWEB300-6:** Web server to monitor and control up to 6 devices on the RS485 network;
  - AERWEB300-18:** Web server to monitor and control up to 18 devices on the RS485 network;
  - AERWEB300-6G:** Web server to monitor and control up to 6 devices on the RS485 network

with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and control up to 18 devices on the RS485 network with integrated GPRS modem;

- **MULTICONTROL:** allows the simultaneous management of several chillers or heat pumps (up to 4), fitted with our MODUCONTROL, installed in the same system.

For a more complete use, the following accessories are available:

**SPLW:** System water probe. In most cases the use of the probe supplied with each chiller/

heat pump is sufficient. If a single departure/return collector was used, this probe can be used for regulating the standard water temperature of the chillers connected to the collector or for simply reading the data.

**SDHW:** Domestic hot water probe. To be used when there is an accumulation tank for regulating the temperature of the water produced.

- **VMF-CRP Accessory for managing the SPLW / SDHW probes**

- **PR3:** Simplified remote panel. This makes it possible to carry out the unit's basic controls

- with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
- **VT** Anti-vibration support, to be fitted below the unit base.
- **BSKW**: Electric heater kit with IP44 electrical box, to be installed outside the unit, but inside the technical compartment in a pro-

tected environment: BS6KW400T (6kW, 400V/3) - BS9KW400T (9kW, 400V/3)

#### Accessories installed in the factory

- **DRE**: Electronic device for reducing the rated starting current.

#### • COMPATIBILITY with the VMF SYSTEM

For further information about the system see the specific documentation.

## Compatibility of accessories

NRK	Vers.	0090	0100	0150
MODU-485BL		•	•	•
AERWEB300		•	•	•
PR3		•	•	•
MULTICONTROL		•	•	•
SPLW		•	•	•
SDHW		•	•	•
VMF-CRP		•	•	•
BS6KW400T		•	•	•
BS9KW400T		•	•	•
VT (00)		15	15	15
VT (P1-P3)		15	15	15
VT (01-03)		15	15	15
DCPX		standard		
Accessories installed in the factory				
DRE		10	10	15

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field	Description
1,2,3	<b>NRK</b>
4,5,6,7	<b>Size</b> 0090-0100-0150
8	<b>Field of use</b> ° mechanical thermostatic valve (1)
9	<b>Model</b> <b>H</b> Heat pump
10	<b>Heat recuperators</b> ° Without recuperator <b>D</b> With desuperheater(2)
11	<b>Version</b> ° High efficiency
12	<b>Coils</b> ° Aluminium <b>R</b> Copper <b>S</b> Tinned copper <b>V</b> Varnished
13	<b>Fans</b> ° Standard
14	<b>Power supply</b> ° 400V3N/50Hz with thermomagnetic switches
15-16	<b>Integrated hydronic unit</b> <b>00</b> Without hydronic unit <b>01</b> Accumulation with 1 low head pump <b>03</b> Accumulation with 1 high head pump <b>P1</b> 1 low head pump <b>P3</b> 1 high head pump

(1) Temperature of water produced up to 4°C

(2) The desuperheater can only be used with cold running

## Technical data

NRK - H			0090	0100	0150
V/ph/Hz			400V/3N/50Hz		
12°C / 7°C	Cooling capacity	(1) kW	18,37	26,25	30,77
	Total input power	(1) kW	5,81	8,46	9,92
	EER	(1)	3,16	3,10	3,10
	ESEER	(1)	3,66	3,71	3,72
	Cooling Energy Class Eurovent	(1)	A	A	A
	Water flow rate	(1) l/h	3175	4551	5344
40°C / 45°C	Pressure drop	(1) kPa	19	39	54
	Heating capacity	(2) kW	20,84	28,82	34,61
	Total input power	(2) kW	6,16	8,40	10,39
	COP	(2)	3,38	3,43	3,33
	Heating Energy Class Eurovent	(2)	A	A	A
	Water flow rate	(2) l/h	3564	4914	5891
23°C / 18°C	Pressure drop	(2) kPa	24	45	65
	Cooling capacity	(3) kW	24,40	34,68	40,65
	Total input power	(3) kW	6,13	9,04	10,62
	EER	(3)	3,98	3,84	3,83
	Cooling Energy Class Eurovent	(3)	A	A	A
	Water flow rate	(3) l/h	4235	6040	7092
30°C / 35°C	Pressure drop	(3) kPa	33	67	92
	Heating capacity	(4) kW	20,20	28,09	33,73
	Total input power	(4) kW	4,57	6,07	7,52
	COP	(4)	4,42	4,63	4,49
	Heating Energy Class Eurovent	(4)	A	A	A
	Water flow rate	(4) l/h	3472	4817	5775
Performance under average climatic conditions (Average)			23	44	64
Pdesignh			22	28	34
SCOP			3,03	2,98	2,90
ηs			118	116	113
Efficiency Energy Class			A+	A+	A+
Pdesignh			21	27	32
SCOP			3,70	3,68	3,60
ηs			145	144	141
Efficiency Energy Class			A+	A+	A+

			0090	0100	0150
<b>Electrical data</b>					
Total input current (cooling)	(8) A		13,3	17,5	20,4
Total input current (heating)	(8) A		14,1	17,3	21,3
Maximum current (FLA)	(8) A		19,1	24,6	29,5
Starting current (LRA)	(8) A		104	121	143
<b>Scroll Compressor</b>					
Compressors / Circuit	n°		1/1	1/1	1/1
Refrigerant	Type			R410A	
<b>Heat exchanger system side</b>					
Exchanger	Type/n°			Plate/1	
hydraulic connections (In/Out)	Ø		1"1/2	1"1/2	1"1/2
<b>Axial fans</b>					
Fan	n°		2	2	2
Air flow rate (cooling)	m³/h		14200	14200	13700
<b>Sound data (cooling mode)</b>					
Sound power level	dB(A)		78	78	78
Sound pressure level	dB(A)		46,5	46,5	46,5

### Date (14511:2013)

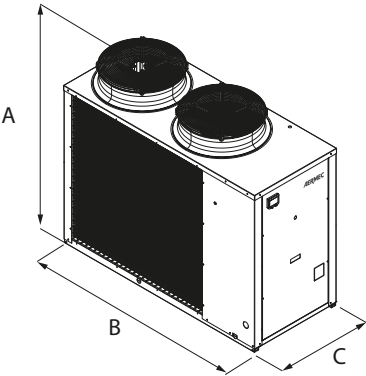
- (1) Water evaporator 12°C/7°C, External air 35°C
- (2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
- (3) Water evaporator 23°C/18°C, External air 35°C
- (4) Water condenser 30°C/35°C, External air 7°C b.s./6°C b.u.
- (5) Efficiencies for average temperature Applications (55°C)
- (6) Efficiencies for low temperature Applications (35°C)
- (7) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW
- (8) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).



Dimensions (mm)



NRK		Vers.	0090	0100	0150
Height	(mm)	A	1580	1580	1580
Width	(mm)	B	1850	1850	1850
Depth	(mm)	C	870	870	870
Weight when empty	(kg)		289	328	372

## NRK 0280/0700 heat pumps

Reversible heat pumps  
Air/Water outdoor installation  
Axial fans and scroll compressor  
Cooling capacity 36÷148kW  
Heating capacity 42÷175kW

HFC  
Refrigerant  
R410A



AERMEC  
participates in the EUROVENT programme  
for: LCP Check ongoing validity of  
certificate online:  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



- **PRODUCTION OF HOT WATER UP TO 65°C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES DOWN TO -20°C**
- **OPTIMIZED FOR OPERATION IN HEATING MODE**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

### Characteristics

- Reversible heat pumps

#### Versions

**NRK\_HA** High efficiency version

**NRK\_HE** High efficiency Low noise version

- **Operational limits (1)**
  - max. external air temperature 48°C in cooling mode
  - Maximum leaving water temperature 65°C in heating mode
- 2 refrigerant circuits
- High efficiency scroll compressors with low power input, with steam injection
- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- flow switch as standard supply
- Water filter

- Low and high pressure transducers
- The built-in hydronic kit already contains the main water circuit components; it is available with single or twin in line, for achieving both low or high head, and buffer tank.
- Axial fans for extremely quiet operation. Available fans high static pressure and equipped with inverter technology, with available high head
- Units fitted as standard with fan speed controller (DCPX).
- Microprocessor controls.
  - Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.
  - Condensing control in summer with a 0-10 V

modulating signal based on pressure and compensated for external air temperature

- Automatic rotation of compressors and pumps based on operating hours
- Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and

- remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **MULTICHILLER PCO:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **GP:** Protection grille protects the external coil from accidental damage.
- **VT** Anti-vibration mounts to be installed under the base of the unit.

#### Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces

starting current by about 26%.

- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.  
**PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.
- **COMPATIBILITY with the VMF SYSTEM** For more information on the system refer to the manual.

## Compatibility of accessories

Mod. NRK	Vers.	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1	All	.	.	.	.	.	.	.	.	.	.
AERWEB300	All	.	.	.	.	.	.	.	.	.	.
PGD1	All	.	.	.	.	.	.	.	.	.	.
MULTICHILLER_PCO	All	.	.	.	.	.	.	.	.	.	.
GP	(1)	All	3	3	4	4	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)
VT (00)	All		17	17	17	17	13	13	13	13	22
VT (-P1-P2-P3-P4)			17	17	17	17	13	13	13	13	22
VT (01-02-03-04-05-06-07-08-09-10)	All		13	13	13	13	10	10	10	10	22
<b>Accessories factory fitted only</b>											
DRE	All		201	281	301	331	351	501	551	601	701
RIF	All		55	56	54	57	65	58	59	60	61
PRM1	All		.	.	.	.	.	.	.	.	.

(1) (x2)(x3) the number in brackets indicates the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	<b>NRK</b>
4,5,6,7	<b>Size</b> 0200-0280-0300-0330-0350-0500-0550-0600-0650-0700 (2)
8	<b>Field of application</b> ° Termostatic expansion valve(3)
9	<b>Model</b>
H	Heat pumps
10	<b>Heat recovery</b> ° Without recovery D With Desuperheater
11	<b>Version</b> A High efficiency E High efficiency in low noise operation
12	<b>Coil</b> ° In aluminium R In copper S In tinned copper V In painted aluminium-copper (epoxy paint)
13	<b>Fans (4)</b> ° Standard M Increased J High static pressure Inverter
14	<b>Alimentation</b> ° 400V/3N/50Hz with circuit breakers
15-16	<b>System integrated hydronic module (5)</b> 00 without pumps or buffer tank 01 Buffer tank and n° 1 low head static pressure pump 02 Buffer tank and n° 2 low head static pressure pump 03 Buffer tank and n° 1 high head static pressure pump 04 Buffer tank and n° 2 high head static pressure pump 05 n°1 low head static pressure pump and buffer tank (with holes for immersion heaters) 06 n°2 low head static pressure pump and buffer tank (with holes for immersion heaters) 07 n°1 high head static pressure pump and buffer tank (with holes for immersion heaters) 08 n°2 high head static pressure pump and buffer tank (with holes for immersion heaters) P1 n° 1 low head static pressure pump P2 n° 2 low head static pressure pump P3 n° 1 high head static pressure pump P4 n° 2 high head static pressure pump

(2) The size 0200-0280-0300-0330 only available in low noise version "HL" and equipped with inverter fans as standard

(3) Leaving water temperature down to 4°C

(4) **Standard on/off fans** for sizes from 0350 to 0700

**Increased on/off fans, option** for sizes from 0200 to 0330

**Standard Inverter fans** for sizes from 0200 to 0330, without useful static pressure

**Inverter fan, option** for sizes from 0350 to 0700 with useful static pressure

(5) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps

## Technical Data

NRK - HA			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
		V/ph/Hz	400V/3N/50Hz									
12°C / 7°C	Cooling capacity	(1) kW	/	/	/	/	75,3	88,6	101,0	117,0	133,0	148,0
	Total input power	(1) kW	/	/	/	/	25,4	29,6	34,0	41,0	45,0	53,0
	EER	(1)	/	/	/	/	2,96	2,99	2,97	2,85	2,96	2,79
	ESEER	(1)	/	/	/	/	3,30	3,19	3,69	3,42	3,50	3,66
	Cooling Energy Class Eurovent	(1)	/	/	/	/	B	B	B	C	B	C
	Water flow rate	(1) l/h	/	/	/	/	12981	15275	17485	20208	22972	25512
40°C / 45°C	Pressure drop	(1) kPa	/	/	/	/	23	26	32	28	34	42
	Heating capacity	(2) kW	/	/	/	/	88,0	104,0	119,0	137,0	156,0	175,0
	Total input power	(2) kW	/	/	/	/	25,5	30,0	35,0	40,0	46,0	52,0
	COP	(2)	/	/	/	/	3,45	3,47	3,40	3,43	3,39	3,37
	Heating Energy Class Eurovent	(2)	/	/	/	/	A	A	A	A	A	A
	Water flow rate	(2) l/h	/	/	/	/	15506	18160	20577	23211	26704	29661
		Pressure drop	(2) kPa	/	/	/	32	36	44	37	45	57
<b>Performance under average climatic conditions (Average)</b>												
		Pdesignh	(3)	/	/	/	89	106	121	137	157	178
		SCOP	(3)	/	/	/	2,88	2,90	3,03	3,03	2,93	2,90
		ηs	(3)	/	/	/	112	113	118	118	114	113

NRK - HE			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
12°C / 7°C	Cooling capacity	(1) kW	35,5	50,3	59,3	66,0	74,2	87,2	99,6	114,3	130,5	145,0
	Total input power	(1) kW	11,7	17,5	19,6	22,4	27,7	32,5	38,1	45,8	49,5	58,1
	EER	(1)	3,03	2,88	3,03	2,95	2,68	2,68	2,61	2,49	2,64	2,50
	ESEER	(1)	3,61	3,52	3,62	3,54	3,47	3,54	3,51	3,42	3,49	3,40
	Cooling Energy Class Eurovent	(1)	B	C	B	B	D	D	D	E	D	E
	Water flow rate	(1) l/h	6128	8666	10231	11374	12796	15028	17167	19705	22503	25022
40°C / 45°C	Pressure drop	(1) kPa	18	17	23	19	22	25	30	27	32	41
	Heating capacity	(2) kW	42,31	59,82	69,56	78,40	88,1	104,1	119,1	136,9	156,0	175,0
	Total input power	(2) kW	12,12	17,13	19,98	22,53	25,5	30,3	34,8	39,9	45,6	51,7
	COP	(2)	3,49	3,49	3,48	3,48	3,45	3,44	3,43	3,43	3,42	3,38
	Heating Energy Class Eurovent	(2)	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(2) l/h	7320	10357	12034	13571	15239	18013	20606	23684	26993	30260
		Pressure drop	(2) kPa	25	23	32	27	31	35	44	39	46
<b>Performance under average climatic conditions (Average)</b>												
		Pdesignh	(3)	44	62	70	/	/	/	/	/	/
		SCOP	(3)	3,08	3,03	3,00	/	/	/	/	/	/
		ηs	(3)	120	118	117	/	/	/	/	/	/
		Efficiency Energy Class	(5)	A+	A+	A+	/	/	/	/	/	/
		Pdesignh	(4)	42	58	67	80	89	106	121	137	157
		SCOP	(4)	3,88	3,75	3,70	3,03	2,88	2,90	3,03	3,03	2,93
		ηs	(4)	152	147	145	118	112	113	118	118	114
		Efficiency Energy Class	(5)	A++	A+	A+	/	/	/	/	/	/

			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Electrical data												
Total input current (cooling)	HA	(6) A	/	/	/	/	55	61	66	72	86	107
Total input current (heating)	HA	(6) A	/	/	/	/	54	59	64	70	85	106
Total input current (cooling)	HE	(6) A	28	38	42	49	60	67	73	80	95	119
Total input current (heating)	HE	(6) A	24	34	38	44	54	59	64	70	85	106
Maximum current (FLA)	HE	(6) A	40	49	61	74	75	85	94	114	144	147
Starting current (LRA)	HE	(6) A	124	146	175	215	216	226	191	228	285	288
Scroll Compressor												
Compressors / Circuit	n°		2/2	2/2	2/2	2/2	2/2	3/2	4/2	4/2	4/2	4/2
Refrigerant	Type		R410A									
Heat exchanger system side												
Exchanger	Type/n°		Plate/1									
hydraulic connections (In/Out)	Ø		2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"
Axial fans												
Fans	HA	Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/3	std/3
Air flow rate (cooling)	HA	m³/h	/	/	/	/	37000	37000	36500	36500	58000	48000
Fans	HE	Type/n°	Inverter/4	Inverter/6	Inverter/8	Inverter/8	std/2	std/2	std/2	std/2	std/3	std/3
Air flow rate (heating)	HE	m³/h	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600
Sound data (cooling mode)												
Sound power level	HA	dB(A)	/	/	/	/	82	82	82	83	85	85
Sound pressure level	HA	dB(A)	/	/	/	/	50	50	50	51	53	53
Sound power level	HE	dB(A)	74	74	75	75	74	74	74	75	77	77
Sound pressure level	HE	dB(A)	42	42	43	43	42	42	42	43	45	45

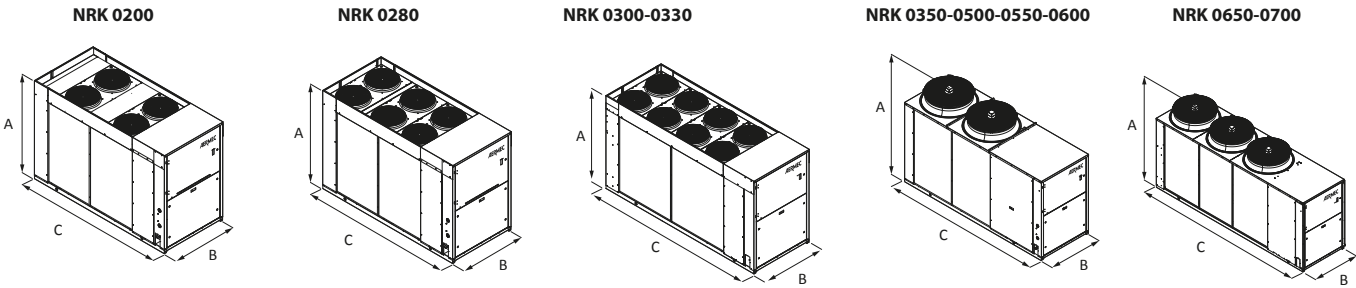
### Date (14511:2013)

- (1) Water evaporator 12°C/7°C, External air 35°C
- (2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.
- (5) Efficiencies for average temperature Applications (55°C)
- (6) Efficiencies for low temperature Applications (35°C)
- (5) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW
- (6) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

Dimensions (mm)



NRK		Vers.		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Height	(mm)	A	All	1606	1606	1606	1606	1875	1875	1875	1875	1875	1875
Width	(mm)	B	All	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Depth	(mm)	C	All	2700	2700	3250	3250	3330	3330	3330	3330	4330	4330
Empty Weight *	(kg)			804	876	960	967	1118	1264	1325	1367	1562	1597

\* Weight standard units without hydronic kit

**NRL**  
**0280/0750**  
**cooling only**

**Air/Water Chillers for external installation**  
**Scroll compressors, plate heat exchangers and axial fans**  
**Cooling capacity 53÷194kW**

HFC  
Refrigerant  
**R410A**

*Variable Multi Flow*  
**VMF**



**AERMEC**  
participates in the EUROVENT  
programme for: LCP Check ongoing  
validity of certificate online:  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



- **COMPACT VERSION**
- **HIGH EFFICIENCIES ALSO AT PARTIAL LOADS**
- **EASY AND FAST INSTALLATION**

## Characteristics

Chillers for external installation for chilled water production with high performance scroll compressors and low electric absorption, axial fans, external copper coils with aluminum fins, plate heat exchangers. In the units (with desuperheater or total recovery) it is also possible to produce free-hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paints.

### Versions

**NRL\_°** standard  
**NRL\_L** Low noise  
**NRL\_A** High efficiency  
**NRL\_E** Low noise high efficiency

**Operating range: Work at full load up to 46°C** external air temperature (for more details please refer to the technical documentation)

- Units with two refrigerant circuits designed to grant the maximum performance at full load, ensuring high efficiencies also at partial loads and giving continuity in case of stop of one of the two circuit.
- Standard Flow-switch, water filter and high and low pressure transducer.
- Possibility of integrated hydronic-kit, which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one or two high and low head pumps.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point

- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

**Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.**

## Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1**: Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **C-TOUCH**: 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- **MULTICHILLER\_PCO**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
AERWEB300-6: Web server to monitor and

- remote control max. 6 units in RS485 network;
- AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
- AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem
- **DCPX**: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
- **GP**: Protective grille. Condenser coil external protection against accidental or hail damage.
- **VT**: anti-vibration support, to be fitted below the sheet metal base of the unit.

### Accessories factory fitted only

- **DRE**: Current soft starter device, **Available only with power supply 400V/3N.**
- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1**: It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe

### COMPATIBILITY WITH THE VMF SYSTEM.

**For further system information please refer to the specific documentation.**

## Compatibility of accessories

Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1		*	*	*	*	*	*	*	*	*	*
PGD1		*	*	*	*	*	*	*	*	*	*
C-TOUCH		*	*	*	*	*	*	*	*	*	*
TP3	All	standard	standard	standard	standard	standard	standard	standard	standard	standard	standard
MULTICHILLER_PCO	All	*	*	*	*	*	*	*	*	*	*
AERWEB300	All	*	*	*	*	*	*	*	*	*	*
DCPX standard fan	(1) °	-	-	-	-	64	64	64	64	64	64
	(1) L	inverter fan				standard	standard	standard	standard	standard	standard
	(1) A	-	-	-	-	64	64	64	64	64	64
	(1) E	inverter fan				standard	standard	standard	standard	standard	standard
DCPX increased fans (M)	(1) °	-	-	-	-	64	64	64	64	64	65
	(1) L	63	63	63	63	standard	standard	standard	standard	standard	standard
	(1) A	-	-	-	-	64	64	64	64	65	65
	(1) E	63	63	63	63	standard	standard	standard	standard	standard	standard
GP	(2) ° - L	3	3	3	3	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)	10 (x3)
	(2) A - E	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)	10 (x3)
VT (00-P1-P4)	° - L	17	17	17	17	13	13	13	13	13	23
	A - E	17	17	17	17	13	13	13	13	22	23
VT (01-10)	° - L	13	13	13	13	10	10	10	10	10	23
	A - E	13	13	13	13	10	10	10	10	22	23
<b>Accessories factory fitted only</b>											
DRE	400V/3N	281	301	331	351	501	551	601	651	701	751
RIF	Alls	50	50	50	51	52	52	53	53	53	53
PRM1	Alls	*	*	*	*	*	*	*	*	*	*

(1) Standard in the models with desuperheater; In versions low noise; Not necessary fields with fans inverter

(2) (x2)(x3) the number in brackets indicates the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	NRL
4,5,6,7	Size
	0280-0300-0330-0350-0500-0550-0600-0650-0700-0750 (3)
8	<b>Expansion valve (4)</b>
	° Standard (leaving water temperature down to 4°C)
Y	Low temperature (Low leaving liquid from 0°C down to -6°C)
X	Electronic expansion valve (leaving water temperature down to 4°C)
	contact head office for lower temperatures
9	<b>Model</b>
	° Chillers
C	Condensing unit (5)
10	<b>Heat recovery</b>
	° Without recovery
D	With Desuperheater
T	With Total Recovery
11	<b>Versione</b>
	° Compact
L	Compact low noise
A	High efficiency
E	High efficiency in low noise operation
12	<b>Coil</b>
	° In aluminium
R	In copper
S	In tinned copper
V	In painted aluminium-copper (epoxy paint)
13	<b>Fans (6)</b>
	° Standard
M	Increased
J	Inverter
14	<b>Power supply</b>
	° 400V/3N/50Hz with circuit breakers
1	220V/3/50Hz with circuit breakers
15-16	<b>Hydronic kit (7)</b>
00	Without hydronic kit
01	n°1 low head pump and buffer tank
02	n°2 low head pump and buffer tank
03	n°1 high head pump and buffer tank
04	n°2 high head pump and buffer tank
05	n°1 low head pump and buffer tank (with holes for immersion heaters)

- 06 n°2 low head pump and buffer tank (with holes for immersion heaters)
- 07 n°1 high head pump and buffer tank (with holes for immersion heaters)
- 08 n°2 high head pump and buffer tank (with holes for immersion heaters)
- 09 double hydraulic circuit
- 10 double hydraulic circuit with holes for immersion heater
- P1 n°1 low head pump
- P2 n°2 low head pump
- P3 n°1 high head pump
- P4 n°2 high head pump

(3) The sizes 0280-0300-0330-0350 are only low noise L/E with inverter fans

(4) **Temperature range of thermostatic valve**

- ° Standard from 4°C to 18°C
- Y Thermostatic valve for low temperature from 4°C to -6°C for vers. ° et L from 4°C to -10 for vers. A (0500 to 0750) from 4°C to -8 for vers. E (0500 to 0750)
- X EEV (Expansion Electronic Valve) from 4°C to 18°C (contact head office for lower temperatures)

The option

**YD/XD contact Aermec**

**YT not available**

(5) The motocondensing models are not configurable with the option D and T, and with the integrated hydronic-kit on the system's side.

(6) **Fans on/off Standard**, for size from 0500 to 0750

**Fans on/off Increased, option** available for all size

**Fans Inverter, Standard** for size from 0280 to 0350, without high static pressure **Fans Inverter, option** for size from 0500 to 0750 with high static pressure

(7) Buffer tanks with holes for additional heaters are supplied from factory with plastics caps of protection, before system's loading, where the installation of one or all the heaters is not provided, it is mandatory to replace plastic caps with special caps, which are commonly available in the market.



## Technical Data

NRL - °		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (1)	kW	/	/	/	/	96,4	102,3	125,2	136,18	154,98
	Total power input (1)	kW	/	/	/	/	35,39	38,86	46,7	54,72	61,02
	EER (1)		/	/	/	/	2,72	2,63	2,68	2,49	2,54
	ESEER (1)		/	/	/	/	3,28	3,17	3,66	3,42	3,48
	Cooling Energy Class Eurovent (1)		/	/	/	/	C	D	D	E	D
	Water flow rate (1)	l/h	/	/	/	/	16659	17689	21639	23528	26791
	Pressure drop (1)	kPa	/	/	/	/	53	59	64	61	74

NRL - L		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (1)	kW	52,62	62,60	67,53	80,5	86,5	92,5	112,4	126,3	143,13
	Total power input (1)	kW	20,68	23,00	26,57	28,94	38,98	43,04	51,54	58,3	65,67
	EER (1)		2,54	2,72	2,54	2,78	2,22	2,15	2,18	2,17	2,18
	ESEER (1)		3,01	3,22	3,01	3,29	3,27	3,17	3,66	3,42	3,48
	Cooling Energy Class Eurovent (1)		D	C	D	C	F	F	F	F	F
	Water flow rate (1)	l/h	9102	10820	11678	13911	14941	15972	19406	21811	24730
	Pressure drop (1)	kPa	51	46	54	55	43	48	51	52	63

NRL - A		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (1)	kW	/	/	/	/	97,5	103,4	128,3	142,16	162,02
	Total power input (1)	kW	/	/	/	/	30,72	34,79	40,83	45,44	53,28
	EER (1)		/	/	/	/	3,17	2,97	3,14	3,13	3,04
	ESEER (1)		/	/	/	/	3,68	3,45	4,07	4,04	3,93
	Cooling Energy Class Eurovent (1)		/	/	/	/	A	B	A	A	B
	Water flow rate (1)	l/h	/	/	/	/	16830	17861	22154	24559	27993
	Pressure drop (1)	kPa	/	/	/	/	44	49	54	60	68

NRL - E		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (1)	kW	56,64	64,64	73,63	82,5	89,6	94,5	116,4	128,32	149,16
	Total power input (1)	kW	17,16	19,76	22,17	25,57	33,54	37,19	44,89	52,28	57,44
	EER (1)		3,30	3,27	3,32	3,23	2,67	2,54	2,59	2,45	2,60
	ESEER (1)		3,75	3,72	3,80	3,68	3,65	3,43	3,97	3,95	3,83
	Cooling Energy Class Eurovent (1)		A	A	A	A	D	D	D	E	D
	Water flow rate (1)	l/h	9789	11163	12709	14254	15456	16315	20093	22154	25761
	Pressure drop (1)	kPa	43	39	35	44	37	41	44	49	58

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

NRL - C		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (2)	kW	/	/	/	/	100,0	106,0	130,0	141,0	161,0
	Total power input (2)	kW	/	/	/	/	35,1	38,5	46,3	54,4	60,5
	EER (2)		/	/	/	/	2,85	2,75	2,81	2,59	2,66

NRL - CL		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (2)	kW	55,0	65,0	70,0	83,0	90,0	96,0	116,0	131,0	148,0
	Total power input (2)	kW	20,5	22,8	26,3	28,7	38,8	42,9	51,4	58,1	65,4
	EER (2)		2,68	2,85	2,66	2,89	2,32	2,24	2,26	2,25	2,26

NRL - CA		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (2)	kW	/	/	/	/	101,0	107,0	133,0	147,0	168,0
	Total power input (2)	kW	/	/	/	/	30,5	34,5	40,5	45,0	52,8
	EER (2)		/	/	/	/	3,31	3,10	3,28	3,27	3,18

NRL - CE		280	300	330	350	500	550	600	650	700	750
	V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity (2)	kW	59,0	67,0	76,0	85,0	93,0	98,0	121,0	133,0	155,0
	Total power input (2)	kW	17,0	19,6	22,0	25,3	33,4	37,0	44,7	52,1	57,1
	EER (2)		3,47	3,42	3,45	3,36	2,78	2,65	2,71	2,55	2,71

(2) Evaporating temperature 5°C, External air 35°C

## Technical Data

			280	300	330	350	500	550	600	650	700	750	
Electrical data													
Total input current (cooling)	°	(3)	A	/	/	/	/	63	67	81	88	100	122
	L	(3)	A	36	40	44	51	70	75	90	99	111	113
	A	(3)	A	/	/	/	/	55	60	71	77	90	113
	E	(3)	A	30	34	37	45	60	64	78	89	97	109
Maximum current (FLA)		(3)	A	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)		(3)	A	155	184	190	200	214	220	232	243	261	320
Scroll Compressor													
Compressors / Circuit		n°	2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2	4/2	
Refrigerant		Type	R410A										
Heat exchanger system side													
Exchanger		Type/n°	Plate/1										
hydraulic connections (In/Out)		Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	
Connection of Condensing unit C													
Gas line		Ø	28/28	28/28	28/28	28/28	35/28	35/28	35/35	35/35	42/42	42/42	
Liquid line		Ø	15,88/15,88	15,88/15,88	15,88/15,88	18/18	18/18	18/18	22/22	22/22	28/28	28/28	
Axial fans													
Fans	°	Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/2	std/3	
	L	Type/n°	Inverter/4	Inverter/4	Inverter/4	Inverter/6	std/2	std/2	std/2	std/2	std/2	std/3	
	A	Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/2	std/3	
	E	Type/n°	Inverter/6	Inverter/6	Inverter/8	Inverter/8	std/2	std/2	std/2	std/2	std/2	std/3	
Air flow rate (cooling)	°	m³/h	/	/	/	/	34600	34600	34600	34600	33600	51400	
	L	m³/h	14200	14200	14200	20200	28400	28700	27700	29400	28600	42700	
	A	m³/h	/	/	/	/	34100	34100	32600	32600	50000	49000	
	E	m³/h	22000	22000	27000	27000	21100	22200	21800	22800	32500	35300	
Sound data (cooling)													
Sound power level		°	dB(A)	/	/	/	/	82	82	82	83	83	85
Sound pressure level		°	dB(A)	/	/	/	/	50	50	50	51	51	53
Sound power level		L	dB(A)	73	73	74	75	77	77	77	78	78	80
Sound pressure level		L	dB(A)	41	41	42	43	45	45	45	46	46	48
Sound power level		A	dB(A)	/	/	/	/	82	82	82	83	85	85
Sound pressure level		A	dB(A)	/	/	/	/	50	50	50	51	53	53
Sound power level		E	dB(A)	74	74	75	76	74	74	74	75	77	77
Sound pressure level		E	dB(A)	42	42	43	44	42	42	42	43	45	45

(3) Unit standard configuration without hydronic kit

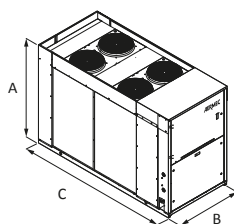
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

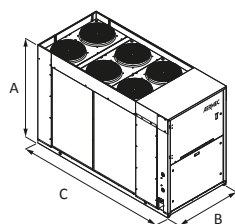
**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

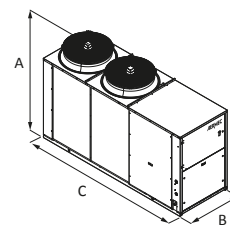
NRL 0280-0300-0330 L



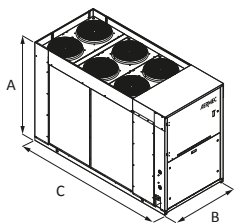
NRL 0350 L



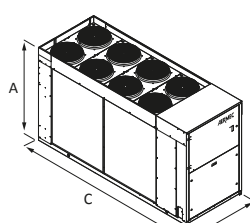
NRL 0500-0550-0600-0650-0700 °/L



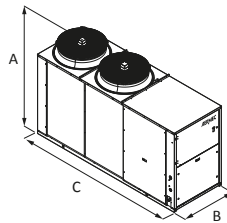
NRL 0280-0300 E



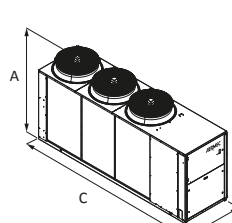
NRL 0330-0350 E



NRL 0500-0550-0600-0650 A/E



NRL 0700 A/E - 0750 °/L/A/E



Mod. NRL	Vers.		0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Height	(mm)	A	Alls	1606	1606	1606	1606	1875	1875	1875	1875	1975
Width	(mm)	B	Alls	1100	1100	1100	1100	1100	1100	1100	1100	1500
Depth	(mm)	C	° / L / C	2450	2450	2450	2450	3010	3010	3010	3010	4350
			A / E / C	2450	2950	2950	2950	3010	3010	3010	4010	4350
Empty weight*	(kg)		° / L	675	684	688	704	868	872	968	983	1091
			A / E	686	751	761	767	955	959	1142	1155	1323

\* Weight standard units without hydronic kit

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## NRL 0280/0750 heat pumps

**Air/Water Reversible heat pumps for external installation**  
**Scroll compressors, plate heat exchangers and axial fans**  
**Cooling capacity 51 - 179kW**  
**Heating capacity 58 - 205kW**

HFC  
Refrigerant  
**R410A**

Variable Multi Flow  
VMF



AERMEC participates in the EUROVENT programme for: LCP Check ongoing validity of certificate online: [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **EUROVENT EFFICIENCY'S CLASS "A" IN HEATING OPERATION**
- **HIGH EFFICIENCIES ALSO AT PARTIAL LOADS**
- **FAST AND EASY INSTALLATION**

### Characteristics

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorption scroll compressors, axial fans, external copper coils with aluminium fins, system-side plate heat exchanger. In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

#### Version

- NRL\_H** Standard heat pumps
- NRL\_HL** Standard heat pumps Low noise version
- NRL\_HA** High efficiency version
- NRL\_HE** High efficiency version Low noise version

**Operating limits:** Work at full load down to -15°C external air temperature in winter season, up to 46°C in summer season. Hot water production up to 55°C (for

more details please refer to the technical documentation)

- Units with two refrigerant circuits designed to reach the maximum performance at full load, granting high efficiencies also at partial loads and assuring continuity in case of stop of one of the two circuits.
- Flow switch, water filter and high and low pressure transducer are standard supplied.
- Possibility of integrated hydronic kit which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one or two pumps high and low head.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows

setting time bands of operation and a possible second set-point

- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

**Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.**

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **C-TOUCH:** 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- **MULTICHILLER PCO:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a com-

mon browser; 4 versions available:

- AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
- AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
- AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.

- **VT:** anti-vibration support, to be fitted below the sheet metal base of the unit.

#### Accessories factory fitted only

- **DRE:** Current soft starter device, **Available only with power supply 400V/3N.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.
- **COMPATIBILITY with the VMF SYSTEM** For more information on the system refer to the manual.

## Compatibility of accessories

Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	all	•	•	•	•	•	•	•	•	•	•
PGD1	all	•	•	•	•	•	•	•	•	•	•
C-TOUCH	all	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_PCO		•	•	•	•	•	•	•	•	•	•
AERWEB300	all	•	•	•	•	•	•	•	•	•	•
DCPX	(1) H	-	-	-	-	64	64	64	64	64	64
	(1) HL	inverter fans				standard	standard	standard	standard	standard	standard
	(1) HA	-	-	-	-	64	64	64	64	65	65
	(1) HE	inverter fans				standard	standard	standard	standard	standard	standard
DCPX Increased fans (M)	(1) H	-	-	-	-	-	-	-	-	-	-
	(1) HL	63	63	63	63	-	-	-	-	-	-
	(1) HA	-	-	-	-	-	-	-	-	-	-
	(1) HE	63	63	63	63	-	-	-	-	-	-
GP	(2) H-HL	3	3	3	3	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)	10 (x3)
	(2) HA-HE	3	4	4	4	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x3)	10 (x3)
VT (00-P1-P2-P3-P4)	H-HL	17	17	17	17	13	13	13	13	13	23
	HA-HE	17	17	17	17	13	13	13	13	22	23
VT (01...10)	H-HL	13	13	13	13	10	10	10	10	10	23
	HA-HE	13	13	13	13	10	10	10	10	22	23
<b>Accessories factory fitted only</b>											
DRE	400V/3N	281	301	331	351	501	551	601	651	701	751
RIF	all	50	50	50	51	52	52	53	53	53	53
PRM1	all	•	•	•	•	•	•	•	•	•	•

(1) Standard in the models with desuperheater; In the low noise versions; Not necessary fields with ventilatori inverter

(2) (x2)(x3) the number in brackets indicates the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

<b>Field</b>	<b>Code</b>	<b>14</b>	<b>Power supply</b>
<b>1,2,3</b>	<b>NRL</b>		° 400V/3N/50Hz with circuit breakers
<b>4,5,6,7</b>	<b>Size</b>	<b>1</b>	220V/3/50Hz with circuit breakers
	0280-0300-0330-0350-0500-0550-0600-0650-0700-750 (3)	<b>15-16</b>	<b>Hydronic kit (6)</b>
<b>8</b>	<b>Expansion valve</b>	<b>00</b>	Without hydronic kit
	° Standard (leaving water temperature down to 4°C)	<b>01</b>	n°1 low head pump and buffer tank
<b>X</b>	Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures	<b>02</b>	n°2 low head pump and buffer tank
<b>9</b>	<b>Model</b>	<b>03</b>	n°1 high head pump and buffer tank
<b>H</b>	Heat pumps	<b>04</b>	n°2 high head pump and buffer tank
<b>10</b>	<b>Heat recovery</b>	<b>05</b>	n°1 low head pump and buffer tank (with holes for immersion heaters)
	° Without recovery	<b>06</b>	n°2 low head pump and buffer tank (with holes for immersion heaters)
<b>D</b>	With Desuperheater (4)	<b>07</b>	n°1 low high pump and buffer tank (with holes for immersion heaters)
<b>11</b>	<b>Version</b>	<b>08</b>	n°2 low high pump and buffer tank (with holes for immersion heaters)
	° Compact	<b>09</b>	double hydraulic circuit
<b>L</b>	Compact low noise	<b>10</b>	double hydraulic circuit with holes for immersion heaters
<b>A</b>	High efficiency	<b>P1</b>	n°1 low head pump
<b>E</b>	High efficiency in low noise operation	<b>P2</b>	n°2 low head pump
<b>12</b>	<b>Coil</b>	<b>P3</b>	n°1 high head pump
	° In aluminium	<b>P4</b>	n°2 high head pump
<b>R</b>	In copper		
<b>S</b>	In tinned copper		
<b>V</b>	In painted aluminium-copper (epoxy paint)		
<b>13</b>	<b>Fans (5)</b>		
	° Standard		
<b>M</b>	Increased		
<b>J</b>	Inverter		

(3) The size 0280-0300-0330-0350 only available in low noise version "HL/HE" with inverter fans

(4) The desuperheater can be used exclusively in the cold operation

(5) **On / off fan Standard**, standard sizes up 0500 to 0750

**On / off fan Increased**, option for size up 0280 to 0350

**Fans Inverter**, standard sizes from 0280 to 0350, with no static pressure

**Fans Inverter**, option for sizes from 0500 to 0750 with static pressure

(6) Buffer tanks with holes for additional heaters are supplied from factory with plastics caps of protection, before system's loading, where the installation of one or all the heaters is not provided, it is mandatory to replace plastic caps with special caps, which are commonly available in the market.

## Technical Data

NRL - H			280	300	330	350	500	550	600	650	700	750
		V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	/	/	/	/	89	94	114	133	144	175
	Total input power	(1) kW	/	/	/	/	36,9	41,1	49,8	54,1	63,8	71,2
	EER	(1)	/	/	/	/	2,42	2,30	2,30	2,46	2,26	2,46
	ESEER	(1)	/	/	/	/	3,30	3,19	3,69	3,42	3,50	3,66
	Cooling Energy Class Eurovent	(1)	/	/	/	/	E	E	F	E	F	E
	Water flow rate	(1) l/h	/	/	/	/	15456	16315	19750	23013	24902	30226
40°C / 45°C	Pressure drop	(1) kPa	/	/	/	/	46	50	53	58	64	74
	Heating capacity	(2) kW	/	/	/	/	99,6	106,7	129,9	151,0	166,2	202,6
	Total input power	(2) kW	/	/	/	/	33,8	36,7	44,0	49,0	56,3	66,8
	COP	(2)	/	/	/	/	2,95	2,91	2,95	3,08	2,95	3,03
	Heating Energy Class Eurovent	(2)	/	/	/	/	C	C	C	B	C	B
	Water flow rate	(2) l/h	/	/	/	/	17209	18426	22424	26075	28682	34940
Performance under average climatic conditions (Average)												
Pdesignh		(3)	/	/	/	/	85	91	110	127	141	171
SCOP		(3)	/	/	/	/	3,20	3,20	3,20	3,28	3,20	3,30
ηs		(3)	/	/	/	/	125	125	125	128	125	129

NRL - HL			280	300	330	350	500	550	600	650	700	750
		V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	50,7	60,6	65,6	72,6	82,6	89,5	109,4	123,3	139,2	164,0
	Total input power	(1) kW	20,5	22,9	26,6	31,4	40,1	43,4	52,4	59,0	66,4	78,4
	EER	(1)	2,48	2,65	2,46	2,31	2,06	2,06	2,09	2,09	2,10	2,09
	ESEER	(1)	3,02	3,23	3,02	3,31	3,28	3,18	3,66	3,42	3,48	3,57
	Cooling Energy Class Eurovent	(1)	E	D	E	E	G	G	G	G	G	G
	Water flow rate	(1) l/h	8759	10476	11335	12537	14254	15456	18891	21296	24043	28337
40°C / 45°C	Pressure drop	(1) kPa	47	43	51	45	39	45	49	50	60	65
	Heating capacity	(2) kW	58,46	68,47	75,58	82,55	99,6	106,7	129,9	151,0	166,2	202,4
	Total input power	(2) kW	19,06	21,77	24,88	28,35	33,8	36,7	44,0	49,0	56,3	66,6
	COP	(2)	3,07	3,15	3,04	2,91	2,95	2,91	2,95	3,08	2,95	3,04
	Heating Energy Class Eurovent	(2)	B	B	B	C	C	C	C	B	C	B
	Water flow rate	(2) l/h	10082	11821	13037	14254	17209	18426	22424	26075	28682	34940
Performance under average climatic conditions (Average)												
Pdesignh		(3)	49	58	64	71	85	91	110	127	141	171
SCOP		(3)	3,20	3,28	3,20	3,20	3,20	3,20	3,20	3,28	3,20	3,30
ηs		(3)	125	128	125	125	125	125	125	128	125	129
Efficiency Energy Class		(4)	A+	A+	A+	/	/	/	/	/	/	/

NRL - HA			280	300	330	350	500	550	600	650	700	750
		V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	/	/	/	/	93,6	99,5	121,5	137,4	149,3	179,0
	Total input power	(1) kW	/	/	/	/	30,8	34,1	41,5	48,5	52,1	64,2
	EER	(1)	/	/	/	/	3,04	2,92	2,92	2,83	2,87	2,79
	ESEER	(1)	/	/	/	/	3,71	3,48	4,13	4,09	3,98	3,98
	Cooling Energy Class Eurovent	(1)	/	/	/	/	B	B	B	C	C	C
	Water flow rate	(1) l/h	/	/	/	/	16143	17174	20952	23700	25761	30913
40°C / 45°C	Pressure drop	(1) kPa	/	/	/	/	33	36	36	43	49	64
	Heating capacity	(2) kW	/	/	/	/	103,5	110,6	135,7	152,8	172,0	205,4
	Total input power	(2) kW	/	/	/	/	31,7	34,4	40,8	45,7	53,1	62,7
	COP	(2)	/	/	/	/	3,26	3,22	3,33	3,34	3,24	3,28
	Heating Energy Class Eurovent	(2)	/	/	/	/	A	A	A	A	A	A
	Water flow rate	(2) l/h	/	/	/	/	17905	19122	23467	26422	29725	35462
Performance under average climatic conditions (Average)												
Pdesignh		(3)	/	/	/	/	87	93	114	129	145	173
SCOP		(3)	/	/	/	/	3,48	3,48	3,58	3,58	3,45	3,53
ηs		(3)	/	/	/	/	136	136	140	140	135	138

NRL - HE			280	300	330	350	500	550	600	650	700	750
		V/ph/Hz	400V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	52,8	61,7	68,7	76,7	89,6	94,6	113,5	127,4	142,3	174,1
	Total input power	(1) kW	18,1	20,3	23,3	26,9	33,5	36,8	45,5	53,3	58,5	68,9
	EER	(1)	2,92	3,04	2,96	2,85	2,68	2,57	2,50	2,39	2,43	2,52
	ESEER	(1)	3,85	3,77	3,85	2,85	3,67	3,45	4,03	3,99	3,87	3,87
	Cooling Energy Class Eurovent	(1)	B	B	B	C	D	D	E	E	E	D
	Water flow rate	(1) l/h	9102	10648	11850	13224	15456	16315	19578	21983	24559	30054
40°C / 45°C	Pressure drop	(1) kPa	20	27	23	27	30	32	31	37	45	60
	Heating capacity	(2) kW	59,25	69,35	76,33	86,40	103,5	110,6	135,7	152,8	172,0	205,4
	Total input power	(2) kW	17,55	20,65	22,83	26,20	31,7	34,4	40,8	45,7	53,1	62,7
	COP	(2)	3,38	3,36	3,34	3,30	3,26	3,22	3,33	3,34	3,24	3,28
	Heating Energy Class Eurovent	(2)	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(2) l/h	10256	11994	13211	14950	17905	19122	23467	26422	29725	35462
Performance under average climatic conditions (Average)												
Pdesignh		(3)	50	58	64	73	87	93	114	129	145	173
SCOP		(3)	3,53	3,50	3,50	3,45	3,48	3,48	3,58	3,58	3,45	3,53
ηs		(3)	138	137	137	135	136	136	140	140	135	138
Efficiency Energy Class		(4)	A+	A+	A+	/	/	/	/	/	/	/

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

(4) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

## Technical Data

			280	300	330	350	500	550	600	650	700	750
Electrical data												
Total input current (cooling)	H (5)	A	/	/	/	/	63,0	67,0	81,0	88,0	100,0	122,0
	HL (5)	A	36,0	40,0	44,0	51,0	70,0	75,0	90,0	99,0	111,0	132,0
	HA (5)	A	/	/	/	/	55,0	60,0	71,0	77,0	90,0	113,0
	HE (5)	A										
Total input current (heating)	H (5)	A	/	/	/	/	60,0	63,0	76,0	82,0	95,0	113,0
	HL (5)	A	33,0	38,0	41,0	50,0	60,0	63,0	76,0	82,0	95,0	113,0
	HA (5)	A	/	/	/	/	55,0	59,0	72,0	82,0	88,0	113,0
	HE (5)	A										
Maximum current (FLA)	(5)	A	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)	(5)	A	155	184	190	200	214	220	232	243	261	320
Scroll Compressor												
Compressors / Circuit	n°		2/2	2/2	2/2	2/2	3/2	3/2	4/2	4/2	4/2	4/2
Refrigerant	Type		R410A									
Heat exchanger system side												
Exchanger	Type/n°		Plate/1									
hydraulic connections (In/Out)	Ø		2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"
Axial fans												
Fans	H	Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/2	std/3
	HL	Type/n°	Inverter/4	Inverter/6	Inverter/6	Inverter/6	std/2	std/2	std/2	std/2	std/2	std/3
	HA	Type/n°	/	/	/	/	std/2	std/2	std/2	std/2	std/3	std/3
	HE	Type/n°	Inverter/6	Inverter/8	Inverter/8	Inverter/8	std/2	std/2	std/2	std/2	std/3	std/3
Air flow rate (cooling)	H	m³/h	/	/	/	/	39400	39400	39400	37500	37500	50200
	HL	m³/h	14000	20000	20000	20000	28400	28700	28700	27400	28100	41700
	HA	m³/h	/	/	/	/	37000	37000	36500	36500	58000	48000
	HE	m³/h	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600
Sound data (cooling mode)												
Sound power level	H	dB(A)	/	/	/	/	82	82	82	83	83	85
Sound pressure level	H	dB(A)	/	/	/	/	50	50	50	51	51	53
Sound power level	HL	dB(A)	73	74	74	75	77	77	77	78	78	80
Sound pressure level	HL	dB(A)	41	42	42	43	45	45	45	46	46	48
Sound power level	HA	dB(A)	/	/	/	/	82	82	82	83	85	85
Sound pressure level	HA	dB(A)	/	/	/	/	50	50	50	51	53	53
Sound power level	HE	dB(A)	74	75	75	76	74	74	74	75	77	77
Sound pressure level	HE	dB(A)	42	43	43	44	42	42	42	43	45	45

(5) Unit standar configuration without hydronic kit

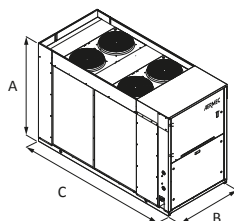
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

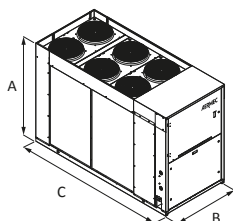
**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

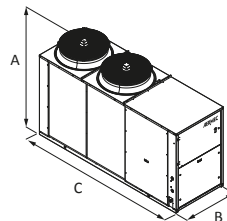
NRL 0280 HL



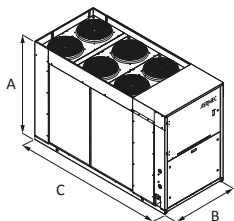
NRL 0300-0330-0350 HL



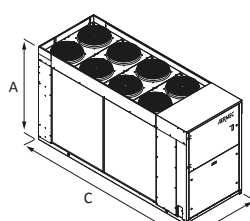
NRL 0500-0550-0600-0650-0700 H/HL



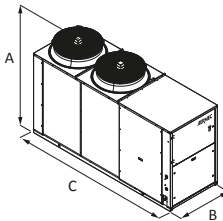
NRL 0280 HE



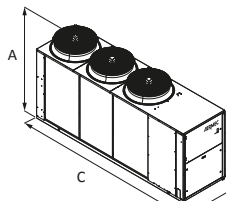
NRL 0300-0330-0350 HE



NRL 0500-0550-0600-0650 HA/HE



NRL 0700 HA/HE  
NRL 0750 H/HL/HA/HE



Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Height	(mm) A	Alls	1606	1606	1606	1606	1875	1875	1875	1875	1975
Width	(mm) B	Alls	1100	1100	1100	1100	1100	1100	1100	1100	1500
Length	(mm) C	H/HL	2450	2450	2450	2450	3010	3010	3010	3010	4350
		HA/HE	2450	2950	2950	2950	3010	3010	3010	4010	4350
Weight empty	kg (6)	H/HL	713	724	731	740	913	917	1016	1130	1487
		HA/HE	730	795	805	811	1099	1103	1204	1212	1748

(6) Unit standar configuration without hydronic kit



## NRV

cooling only

HFC  
Refrigerant  
R410A



Aermec is participating in the EUROVENT program: LCP The related products can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable Multi Flow®

VMF



- MICRO-CHANNEL COIL
- EASY AND QUICK TO INSTALL COMPACT MODULE
- RELIABILITY AND MODULARITY

### Features

NRV is made up of independent 108kW modules that can be connected to each other up to a power of 970kW. Every single module is an outdoor chiller to produce chilled water with high efficiency scroll compressors, axial fans, micro-channel coils, and plate exchanger on the system side. In the units with desuperheater, there is also the possibility of producing hot water for free.

The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.

With NRV, it is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum. Modularity allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.

#### Versions

NRV\_A Standard high efficiency  
NRV\_E Silenced high efficiency

**Operating range:** Work up to 46°C of outdoor air temperature at full load.

- NRV is made up of a cooling circuit. The careful selection of the components used, the particular configuration and the option of connecting several independent modules and managing them as if they were a single unit allows for maximum yield at

full load but even partial load, thanks to the partialisation steps that increase as the number of connected modules increases this ensures continuous adaptation to the actual system requirements.

- The electrical panel in every unit and the management logic that allows each module to be operated in synergy with the others ensures continuity even if one or more of the modules freeze up.  
**Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.**
- **The modules are easy to install and connect to each other from a hydraulic standpoint, thanks to the connections with grooved joints.**
- The chiller module uses aluminium micro-channel coils, ensuring very high levels of efficiency. These coils allow less refrigerant to be used compared to traditional copper/aluminium coils.
- **NRV is already equipped with a water filter, differential pressure switch and butterfly check valves**, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.  
In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.
- Microprocessor adjustment, with keyboard and LCD display,

for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- Thermoregulation takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced functioning profile.

Perfect for night functioning, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

**Night Mode is standard in the unit with J inverter fan and in the E silenced version.**  
**Either a DCPX or inverter fan is necessary for the high efficiency version.**

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Allows you to control the chiller at a distance.
- **MULTICHILLER\_PCO:** Control, switch-on and switch-off system of the individual chillers when multiple units are installed in parallel; always ensuring constant flow rate to the evaporators.
- **DCPX:** Condensation temperature control device with continuous modulation of the fan speed via pressure transducer. **Standard supplied in silenced versions and in units with Desuperheater**
- **GPNYB\_BACK:** kit with 1 anti-intrusion grid for the short side of the unit.
- **GPNYB\_SIDE:** kit with 2 anti-intrusion grids for the long side of the unit.
- **Accessories mounted in the factory;**
  - **DRE:** Plate peak current reduction electronic device.
  - **RIF:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
  - **KNYB:** Pair of caps with grooved joints assembled on the unit manifold.
- **KREC:** Accessory kit to remote the electric power supply input to the back (see documents).
- **COMPATIBILITY with VMF SYSTEM**  
For further information on system, refer to specific documentation.

NRV	vers.	0550
AER485P1		•
PGD1		•
MULTICHILLER_PCO		•
DCPX	* A	•
GPNYB_BACK		•
GPNYB_SIDE	(1)	•

NRV	vers.	0550
<b>Accessories mounted in the factory;</b>		
DRE	*	•
REF	*	•
KNYB		•
KREC		•

\* Contact the head office  
(1) Kit made up of two grids



## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field	Description	
1,2,3	<b>NRV</b>	
4,5,6,7	<b>Size</b>	0550
8	<b>Scope of application</b>	
	° Mechanical Thermostatic Valve (water produced to +4 °C)	
	<b>X</b> Electronic Thermostatic Valve	
9	<b>Model</b>	
	° Cooling only	
10	<b>Heat recovery</b>	
	° Without heat recovery	
	<b>D</b> With Desuperheater:	
11	<b>Version</b>	
	<b>A</b> High efficiency	
	<b>E</b> Silenced high efficiency	
12	<b>Coils</b>	
	° Aluminium micro-channel	
	<b>O</b> Aluminium micro-channel with cataphoresis treatment	
	<b>R</b> Copper - Copper	
	<b>S</b> Copper - Thinned	
13	<b>Fans</b>	
	° Standard	
	<b>J</b> Inverter (2)	
14	<b>Power supply</b>	
	° 400V/3/50Hz with magnet circuit breakers	
15-16	<b>Integrated hydronic kit</b>	
00	Without hydronic kit	

(2) The DCPX is unnecessary with the "J" fan

## Technical data

NRV - A		0550
	V/ph/Hz	400V/3/50Hz
12°C / 7°C	Cooling capacity	108.1
	Input power	34.9
	EER	3.10
	ESEER	4.10
	Eurovent Class during cooling function	A
	Water flow rate	18646
	Head drops	32

NRV - E		0550
	V/ph/Hz	400V/3/50Hz
12°C / 7°C	Cooling capacity	103.5
	Input power	36.3
	EER	2.85
	ESEER	4.06
	Eurovent Class during cooling function	C
	Water flow rate	17862
	Head drops	30

### Data (14511:2013)

Evaporator water 12°C/7°C, Outdoor air 35°C

GENERAL DATA		0550
<b>Electrical data</b>		
Total input current	A	62
<b>Scroll compressors</b>		
Compressors / Circuit	n°/n°	2/1
Refrigerant gas	type	R410A
<b>System side heat exchanger - plates</b>		
Heat exchanger	no.	1
<b>Axial fans</b>		
Fans	no.	2
Air flow rate in cooling mode	A m³/h	32000
	E m³/h	24000
<b>Sound data</b>		
Sound power level	A dB(A)	85
Sound pressure level	A dB(A)	53
Sound power level	E dB(A)	82
Sound pressure level	E dB(A)	50

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with what is requested by Eurovent certification.

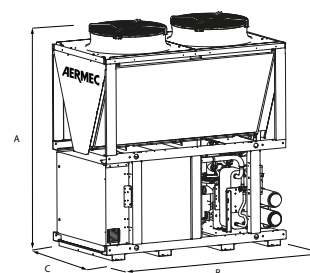
**Sound pressure (cold functioning)** Sound pressure measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

## Dimensions and weights

NRV		Vers.	0550
Height	(mm)	A	all
Width	(mm)	B	all
Depth	(mm)	C	all
Weight	(kg)	all	1105

\* Weight of the standard unit without accessories



Code: SNRVUY01 / 1609

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NRB

**0800/3600  
only cooling**

**HFC**  
Refrigerant  
**R410A**

*Variable Multi Flow\**

VMF



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Air/Water Chillers for Outdoor Installation**  
**Scroll compressors, Plate Heat Exchangers and Axial Fans**  
**Cooling capacity 221 - 1047kW**



- **MICROCHANNEL COIL**
- **HP FLOATING: ESEER +7% WITH INVERTER FANS**
- **NIGHT MODE**
- **SHELL AND TUBE HEAT EXCHANGER OPTION**

## Characteristics

Outdoor chillers for the production of chilled water with high efficiency scroll compressors, axial fans, microchannel condenser coils, and plate heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with polyester paint.

### Versions

<b>NRB_°</b>	Standard
<b>NRB_L</b>	Standard low noise
<b>NRB_A</b>	High efficiency
<b>NRB_E</b>	High efficiency low noise
<b>NRB_U</b>	Very high efficiency
<b>NRB_N</b>	Very high efficiency low noise

**Range of operation:** Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in case one of the circuits stops.

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network

- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows the use less refrigerant compared to traditional copper coils.
- **All standard NRB fit plate exchanger but we can even supply shell&tube version on demand.** For further information, please refer to specific literature.
- The possibility of using the electronic thermostatic valve brings significant benefits, particular in when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. It is supplied as standard from size 1800÷3600 and is optional for all other sizes.
- Electrical heater for plate heat exchanger
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available.
- Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

- with integrated GPRS modem;
- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER\_PCO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer. **Standard in option low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.
- **FL:** Flow Switch. **The accessory must be mounted or otherwise forfeit warranty**

- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 7% are obtained with inverter equipped models.**
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.**

### Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current).
- **KRS: Evaporator trace heating for Shell&tube**
- **GP:** Coil guards.

### COMPATIBILITY WITH THE VMF SYSTEM.

For further system information please refer to the specific documentation.

## Compatibility of Accessories

Mod. NRB	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERWEB300		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_PCO		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
DCPX	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AVX	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Accessories factory fitted only</b>																		
DRENRB		0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
	°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	L	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
KRS	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
GP	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	(2) °	-	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*
	(2) L	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*
	(2) A	-	-	-	-	-	-	*	*	*	*	*	*	*	*	*	*	*
	(2) E	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	(2) U	-	-	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*
	(2) N	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) Refer to the technical documentation; (2) with the accessory XLA do not use the DCPX

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

### Field Description

#### 1,2,3 NRB

#### 4,5,6,7 Sizes (2)

0800-0900-1000-1100-1200-1400-1600-1800-2000-  
2200-2400-2600-2800-3000-3200-3400-3600

#### 8 Operational Limits

° Standard (temperature of water produced up to +4 °C)(3)

Y Low Temperature (temperature of water produced from +4°C a -8°C) (4)

X Electronic Thermostatic Valve  
(temperature of water produced up to +4 °C)

Z Low Temperature Electronic Thermostatic Valve  
(temperature of water produced from +4°C a -8°C) (4)

#### 9 Model

° Cooling Only

C Motor Condensing Unit (5)

#### 10 Heat recovery

° Without Heat Recovery

D With Desuperheater (5)

T With Total Recovery (5)

#### 11 Version

° Standard

L Low Noise Standard

A High Efficiency

E Low Noise High Efficiency

U Very High Efficiency

N Low noise very high efficiency

#### 12 Coils

° Aluminium microchannel

O Painted Aluminium Microchannel

R Copper - copper

S Copper - Tinned

#### 13 Fans

° Standard

M Increased

J Inverter

#### 14 Power supply

° 400V/3/50Hz magnet circuit breakers

### 15-16 Integrated hydronic kit

#### 00 Without hydronic kit

#### With n°1 pump: (6)

PA Pump A

PB Pump B

PC Pump C

PD Pump D

PE Pump E

PF Pump F

PG Pump G

PH Pump H

PI Pump I

PJ Pump J

#### With n°2 pump: (6)

DA Pump A and Stand-by pump

DB Pump B and Stand-by pump

DC Pump C and Stand-by pump

DD Pump D and Stand-by pump

DE Pump E and Stand-by pump

DF Pump F and Stand-by pump

DG Pump G and Stand-by pump

DH Pump H and Stand-by pump

DI Pump I and Stand-by pump

DJ Pump J and Stand-by pump

#### With n° 1 pump and buffer tank: (6)(7)

AA Pump A and buffer tank

AB Pump B and buffer tank

AC Pump C and buffer tank

AD Pump D and buffer tank

AE Pump E and buffer tank

AF Pump F and buffer tank

AG Pump G and buffer tank

AH Pump H and buffer tank

AI Pump I and buffer tank

AJ Pump J and buffer tank

#### With n° 2 pumps and buffer tank: (6)(7)

BA Pump A with Stand-by pump and buffer tank

BB Pump B with Stand-by pump and buffer tank

BC Pump C with Stand-by pump and buffer tank

BD Pump D with Stand-by pump and buffer tank

BE Pump E with Stand-by pump and buffer tank

BF Pump F with Stand-by pump and buffer tank

BG Pump G with Stand-by pump and buffer tank

BH Pump H with Stand-by pump and buffer tank

BI Pump I with Stand-by pump and buffer tank

BJ Pump J with Stand-by pump and buffer tank

(2) The availability of models is to be agreed with the Technical Sales

(3) Sizes from 1800÷3600 standard with the electronic thermostatic valve

(4) In the versions A-E-U-N it's possible produce cooling water up to -10°C, for more information contact us

(5) The motor condensing units are not configurable with option Y/X/Z

The models with total recovery "D/T" are not configurable with Y/Z and with vers. "C"

(6) All hydronic kit (from PA to BJ) are not compatible for the following sizes and versions with heat recovery "T":

- 0800 - 0900 - 1000 - 1100 versions "non"

- 0800 - 0900 versions "A"

- 0800 - 0900 versions "L"

(7) All hydraulic kit with pump / and buffer tank (from AA to BJ) are not compatible for all sizes and versions with heat recovery "T"

## Technical Data

NRB - °		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
12°C / 7°C	V/ph/Hz	400V/3/50Hz																	
	Cooling capacity	(1) kW	221	244	270	299	352	404	438	510	559	596	674	719	784	829	878	943	996
	Total power input	(1) kW	73	83	94	110	117	135	155	176	194	217	236	256	270	293	315	329	355
	EER	(1)	3,02	2,93	2,87	2,71	3,00	2,98	2,82	2,90	2,88	2,75	2,85	2,81	2,90	2,83	2,79	2,86	2,80
	ESEER	(1)	4,16	4,07	4,00	3,84	4,14	4,12	3,96	4,04	4,02	3,88	3,98	3,94	4,04	3,97	3,92	4,00	3,93
	ESEER HP floating	ESEER improvements of up to 7%																	
	Cooling Energy Class Eurovent	(1)	B	B	C	C	B	B	C	B	C	C	C	C	C	C	C	C	C
	Water flow rate	(1) l/h	38160	42120	46550	51620	60800	69720	75600	88010	96580	103000	116350	124240	135450	142970	151500	162790	171800
Pressure drop	(1) kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43	

NRB - L			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	217	237	272	307	343	390	438	497	554	607	665	726	769	833	885	950	1002
	Total power input	(1) kW	73	86	92	107	123	139	152	173	192	214	234	247	270	285	307	323	348
	EER	(1)	2,97	2,76	2,96	2,86	2,8	2,81	2,88	2,87	2,89	2,84	2,84	2,94	2,85	2,93	2,88	2,94	2,88
	ESEER	(1)	4,23	4,09	4,22	4,15	4,11	4,12	4,17	4,16	4,18	4,14	4,14	4,21	4,14	4,20	4,17	4,21	4,17
	ESEER HP floating		ESEER improvements of up to 7%																
	Cooling Energy Class Eurovent	(1)	B	C	B	C	C	C	C	C	C	C	C	B	C	B	C	B	C
	Water flow rate	(1) l/h	37360	40940	46960	52990	59200	67320	75460	85760	95600	104710	114690	125170	132530	143570	152590	163960	172820
	Pressure drop	(1) kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43

NRB - A			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	224	252	283	326	361	411	461	518	575	632	696	756	804	865	927	978	1024
	Total power input	(1) kW	71	81	90	105	115	132	148	166	183	203	223	240	256	277	297	314	330
	EER	(1)	3,17	3,11	3,14	3,11	3,13	3,12	3,13	3,12	3,13	3,11	3,12	3,14	3,14	3,12	3,12	3,11	3,10
	ESEER	(1)	4,32	4,23	4,27	4,23	4,25	4,24	4,25	4,24	4,26	4,23	4,24	4,28	4,27	4,25	4,24	4,23	4,21
	ESEER HP floating		ESEER improvements of up to 7%																
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	38600	43440	48860	56140	62190	70870	79580	89370	99160	109010	120100	130380	138690	149210	159850	168810	176730
	Pressure drop	(1) kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45

NRB - E			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	219	248	275	321	358	403	454	514	568	636	687	740	793	856	910	963	1017
	Total power input	(1) kW	70	79	89	102	115	130	144	165	183	203	221	237	255	275	291	310	328
	EER	(1)	3,14	3,12	3,10	3,14	3,12	3,10	3,15	3,12	3,10	3,13	3,10	3,13	3,10	3,12	3,13	3,10	3,10
	ESEER	(1)	4,33	4,3	4,27	4,33	4,29	4,27	4,33	4,29	4,27	4,31	4,27	4,31	4,27	4,29	4,31	4,26	4,27
	ESEER HP floating		ESEER improvements of up to 7%																
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	37750	42770	47360	55330	61750	69420	78330	88560	97950	109670	118450	127560	136720	147660	156920	166120	175460
	Pressure drop	(1) kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46

NRB - U			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	227	257	286	329	369	414	466	528	593	654	716	764	814	877	939	997	1047
	Total power input	(1) kW	69	78	87	99	112	126	141	160	179	198	215	229	249	266	282	303	320
	EER	(1)	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,31	3,31	3,31	3,32	3,33	3,27	3,30	3,33	3,30	3,28
	ESEER	(1)	4,37	4,39	4,37	4,39	4,38	4,35	4,39	4,39	4,39	4,39	4,41	4,42	4,33	4,38	4,41	4,37	4,34
	ESEER HP floating	ESEER improvements of up to 7%																	
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	39190	44360	49350	56750	63670	71380	80370	91100	102250	112740	123390	131760	140330	151290	161950	172070	180640
	Pressure drop	(1) kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49

NRB - N			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C / 7°C	Cooling capacity	(1) kW	227	260	284	327	367	412	465	521	578	645	702	748	803	865	925	971	1027
	Total power input	(1) kW	69	79	86	99	112	125	140	158	176	195	213	229	247	263	283	301	319
	EER	(1)	3,32	3,3	3,29	3,32	3,28	3,28	3,31	3,3	3,28	3,31	3,29	3,27	3,26	3,28	3,27	3,22	3,22
	ESEER	(1)	4,48	4,44	4,44	4,48	4,42	4,42	4,47	4,45	4,42	4,47	4,44	4,4	4,38	4,42	4,41	4,33	4,32
	ESEER HP floating		ESEER improvements of up to 7%																
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	39210	44840	49030	56430	63300	70980	80240	89790	99680	111130	120920	128990	138510	149130	159500	167560	177270
	Pressure drop	(1) kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

## Dimensions (mm)

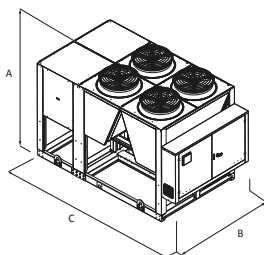
			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Electrical data																				
Total input current (cooling)	°	(2)	A	128	143	160	186	202	230	261	300	330	367	405	434	459	498	535	563	606
Maximum current (FLA)		(2)	A	164	181	197	226	262	291	320	367	408	449	497	529	569	610	650	698	739
Starting current (LRA)		(2)	A	353	408	424	477	513	625	654	637	678	719	766	799	838	879	920	967	1008
Total input current (cooling)	L	(2)	A	123	142	154	179	203	232	251	290	319	359	390	413	449	479	513	545	585
Maximum current (FLA)			A	177	193	222	252	281	310	352	393	446	487	547	592	625	666	720	761	802
Starting current (LRA)			A	366	421	450	503	532	644	686	662	716	757	816	862	895	936	989	1030	1071
Total input current (cooling)	A	(2)	A	124	140	159	182	198	224	252	284	316	349	386	418	442	476	513	542	568
Maximum current (FLA)			A	177	193	222	252	281	310	352	393	446	487	547	592	625	666	720	761	802
Starting current (LRA)			A	366	421	450	503	532	644	686	662	716	757	816	862	895	936	989	1030	1071
Total input current (cooling)	E	(2)	A	119	135	149	172	193	216	240	275	306	343	373	397	426	460	488	521	549
Maximum current (FLA)			A	190	206	222	265	294	323	365	424	465	519	560	605	638	692	745	786	827
Starting current (LRA)			A	378	434	450	515	545	657	699	693	734	788	829	874	907	961	1015	1056	1096
Total input current (cooling)	U	(2)	A	124	138	153	176	196	218	244	278	312	348	377	401	432	463	494	528	556
Maximum current (FLA)			A	190	206	222	265	294	323	365	424	465	519	560	605	638	692	745	786	827
Starting current (LRA)			A	378	434	450	515	545	657	699	693	734	788	829	874	907	961	1015	1056	1096
Total input current (cooling)	N	(2)	A	118	135	147	167	189	209	234	264	295	329	360	385	412	442	475	506	536
Maximum current (FLA)			A	203	219	235	277	307	336	383	437	478	531	572	618	651	704	758	799	840
Starting current (LRA)			A	391	446	463	528	557	670	717	706	747	801	842	887	920	974	1027	1068	1109
Scroll Compressor																				
Compressors / Circuit		n°	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Refrigerant		Type	R410A																	
Plate Heat exchanger system side (Option Shell&Tube Heat exchanger)																				
Exchanger		n°	1																	
hydraulic connections (In/Out)		Ø	Please refer to technical documentation																	
Axial fans																				
Fan	°	n°	4	4	4	4	6	6	6	8	8	8	10	10	12	12	12	14	14	
Air flow rate		m³/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000	
Fan		L	n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate	L	m³/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	161000	184000	184000	208000	
Fan	A	n°	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16	
Air flow rate		m³/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	288000	
Fan		E	n°	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	E	m³/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	230000	
Fan	U	n°	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20	
Air flow rate		m³/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	320000	
Fan		N	n°	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	N	m³/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	253000	
Sound data (cooling)																				
Sound power level	°	dB(A)	88	88	88	88	90	90	90	92	92	93	95	95	96	96	96	96	96	
	L	dB(A)	83	83	85	85	85	86	86	88	89	90	90	91	91	92	92	93	93	
	A	dB(A)	88	88	90	90	90	90	91	92	94	94	96	96	96	96	97	97	97	
	E	dB(A)	85	85	85	86	86	86	88	89	89	91	91	92	92	93	93	93	93	
	U	dB(A)	90	90	90	91	91	91	93	94	95	96	96	97	97	98	98	98	98	
	N	dB(A)	86	86	86	88	88	88	88	90	90	91	92	93	93	93	93	94	94	94

(2) Unit standard configuration without hydronic kit

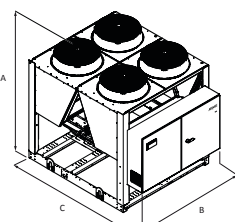
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

## Dimensions (mm)

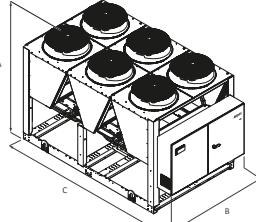
(1) Unit with buffer tank  
NRB0800÷1100 ° (1)  
NRB0800÷0900 L/A (1)



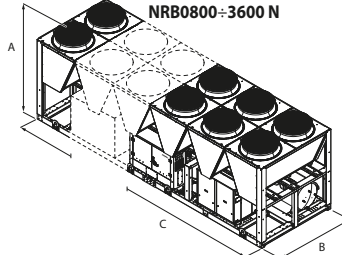
NRB0800÷1100 °  
NRB0800÷0900 L/A



NRB1200÷1600 °  
NRB1000÷1400 L/A  
NRB0800÷1000 E/U



NRB1800÷3600 °  
NRB1600÷3600 L/A  
NRB1100÷3600 E/U  
NRB0800÷3600 N



NRB			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Height	A	Alls mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	Alls mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depth	C	° mm	2780*	2780*	2780*	2780*	3970	3970	3970	4760	4760	4760	5950	5950	7140	7140	7140	8330	8330
		L mm	2780*	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
		A mm	2780*	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	8330	8330	8330	9520	9520	9520
		E mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
		U mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
		N mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
Empty weight		° kg	2240	2280	2350	2390	2880	2930	2960	3580	3660	3740	4270	4500	5150	5390	5470	6000	6150
		L kg	2260	2320	2800	2870	2910	2970	3490	3630	4110	4230	4670	5510	5760	5910	6390	6520	6600
		A kg	2260	2320	2800	2870	2910	2970	3490	3630	4110	4230	4670	5510	5760	5910	6390	6520	6600
		E kg	2720	2760	2840	3370	3440	3460	3940	4390	4510	5200	5280	5910	6160	6700	7140	7220	7300
		U kg	2720	2760	2840	3370	3440	3460	3940	4390	4510	5200	5280	5910	6160	6700	7140	7220	7300
		N kg	3220	3270	3340	3770	3840	3870	4290	4840	4970	5600	5680	6310	6560	7010	7540	7620	7700

\* Depth units Standard or with pump, for the unit with buffer tank the depth is 3970mm  
The weight is the standard unit with the plates heat exchanger and without hydronic kit

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



## NRB

0800/3600  
Heat pumps

Reversible heat pumps air/water for outdoor installation  
Scroll compressors, plate heat exchangers and axial fans  
Cooling capacity 196 - 969kW  
Heating capacity 210 - 1009kW

HFC  
Refrigerant  
R410A



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable Multi Flow®  
VMF



- HIGH EFFICIENCY ALSO AT PARTIAL LOADS
- HP FLOATING: ESEER +7% WITH INVERTER FANS
- NIGHT MODE
- SHELL AND TUBE HEAT EXCHANGER OPTION

### Characteristics

Outdoor heat pump unit for the production of chilled / hot water, with high efficiency scroll compressors, axial fans, and plate heat exchanger. In the units (with desuperheater) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with polyester paint.

#### Version

NRB\_H Standard  
NRB\_HL Low noise  
NRB\_HA High efficiency  
NRB\_HE High efficiency low noise

**Range of operation:** Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, also ensuring high efficiency at partial loads and ensuring continuity in

case one of the circuits stops.

- **All standard NRB fit plate exchanger but we can even supply shell&tube version on demand.** For further information, please refer to specific literature.
- The possibility of using the electronic thermostatic valve brings significant benefits, particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. It is supplied as standard from size 1800÷3600 and is optional for all other sizes.
- Electrical heater for plate heat exchanger.
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different available static pressures.
- Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- The presence of a programmable timer allows set-

ting time bands of operation and a possible second set-point.

- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 7% are obtained with inverter equipped models.**
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.**

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network

with integrated GPRS modem;

- **PGD1:** Remote control of the chiller operating functions.
- **MULTICHILLER\_PCO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer. **Standard in option low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.
- **FL:** Flow Switch. **The accessory must be mounted or otherwise forfeit warranty.**

#### Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
- **KRS:** Evaporator trace heating for Shell&tube
- **GP:** Coil guards.
- **COMPATIBILITY with the VMF SYSTEM**  
For more information on the system refer to the manual.

## Compatibility of Accessories

Mod. NRBH	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERWEB300		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_PCO		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
DCPX	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AVX	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Accessories factory fitted only</b>																		
DRENRB		0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
KRS		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
RIF	H°	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	HL	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	HA	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	HE	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

\* Accessories to be defined for compatibility

(1) Refer to the technical documentation

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

### Field Description

#### 1,2,3 NRB

#### 4,5,6,7 Size (1)

0800-0900-1000-1100-1200-1400-1600-1800-2000-  
2200-2400-2600-2800-3000-3200-3400-3600

#### 8 Operational limits

- ° Standard (temperature of water produced up to +4 °C) (2)

X Electronic thermostatic valve  
(temperature of water produced up to +4 °C)

#### 9 Model

H Reversible heat pump

#### 10 Heat recovery

- ° Without heat recovery

D With desuperheater (3)

#### 11 Version

- ° Standard

L Low noise standard

A High efficiency

E Low noise high efficiency

#### 12 Coils

- ° Aluminium

R Copper - Copper

S Copper - Tinned

V Aluminium painted

#### 13 Fans

- ° Standard

J Inverter

#### 14 Power supply

- ° 400V/3/50Hz with breakers

#### 15-16 Integrated hydronic kit

00 Without hydronic kit

##### With n°1 pump:

PA Pump A

PB Pump B

PC Pump C

PD Pump D

PE Pump E

PF Pump F

PG Pump G

PH Pump H

PI Pump I

PJ Pump J

##### With n°2 pump:

DA Pump A and Stand-by pump

DB Pump B and Stand-by pump

DC Pump C and Stand-by pump

DD Pump D and Stand-by pump

DE Pump E and Stand-by pump

DF Pump F and Stand-by pump

DG Pump G and Stand-by pump

DH Pump H and Stand-by pump

DI Pump I and Stand-by pump

DJ Pump J and Stand-by pump

##### With n° 1 pump and buffer tank:

AA Pump A and buffer tank

AB Pump B and buffer tank

AC Pump C and buffer tank

AD Pump D and buffer tank

AE Pump E and buffer tank

AF Pump F and buffer tank

AG Pump G and buffer tank

AH Pump H and buffer tank

AI Pump I and buffer tank

AJ Pump J and buffer tank

##### With n° 2 pumps and buffer tank:

BA Pump A with Stand-by pump and buffer tank

BB Pump B with Stand-by pump and buffer tank

BC Pump C with Stand-by pump and buffer tank

BD Pump D with Stand-by pump and buffer tank

BE Pump E with Stand-by pump and buffer tank

BF Pump F with Stand-by pump and buffer tank

BG Pump G with Stand-by pump and buffer tank

BH Pump H with Stand-by pump and buffer tank

BI Pump I with Stand-by pump and buffer tank

BJ Pump J with Stand-by pump and buffer tank

(1) The availability of models is to be agreed with the Technical Sales

(2) Sizes from 1800÷3600 standard with the electronic thermostatic valve

(3) The desuperheater can be used exclusively in the cold operation



## Technical data

NRB - H			800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
			V/Ph/Hz		400V/3/50Hz															
12°C / 7°C	Cooling capacity	(1)	kW	196,0	217,7	251,3	278,7	313,6	353,2	388,2	455,8	500,8	567,5	614,6	652,5	716,4	766,0	803,7	868,0	913,1
	Total power input	(1)	kW	74,2	86,1	91,7	108,0	119,7	141,3	155,3	172,7	193,4	211,0	231,1	252,9	266,3	291,3	315,2	327,6	353,9
	EER	(1)		2,64	2,53	2,74	2,58	2,62	2,5	2,5	2,64	2,59	2,69	2,66	2,58	2,69	2,63	2,55	2,65	2,58
	ESEER	(1)		3,87	3,78	3,94	3,82	3,85	3,75	3,75	3,86	3,83	3,9	3,88	3,82	3,9	3,85	3,79	3,87	3,82
	ESEER HP floating	ESEER improvements of up to 7%																		
	Cooling Energy Class Eurovent	(1)		D	D	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D
	Water flow rate	(1)	l/h	33778	37532	43312	48039	54057	60885	66921	78576	86331	97817	105945	112475	123491	132040	138547	149631	157395
	Pressure drop	(1)	kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34
	Heating capacity	(2)	kW	215,5	237,8	275,7	306,6	344,7	367,0	413,6	479,4	528,9	593,4	644,9	690,7	752,2	797,5	838,3	908,9	950,0
	Total input power	(2)	kW	70,2	77,7	89,5	99,9	112,3	121,9	137,0	157,2	174,6	193,9	210,8	227,9	245,0	260,6	275,8	296,1	311,5
40°C / 45°C	COP	(2)		3,07	3,06	3,08	3,07	3,07	3,01	3,02	3,05	3,03	3,06	3,06	3,03	3,07	3,06	3,04	3,07	3,05
	Heating Energy Class Eurovent	(2)		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	Water flow rate	(2)	l/h	37317	41173	47731	53076	59681	63532	71605	82997	91576	102738	111652	119575	130228	138071	145133	157358	164479
	Pressure drop	(2)	kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37
	Performance under average climatic conditions (average)																			
Pdesignh	(3)		203	224	260	289	325	346	/	/	/	/	/	/	/	/	/	/	/	
SCOP	(3)		3,65	3,65	3,65	3,68	3,65	3,6	/	/	/	/	/	/	/	/	/	/	/	
ηs	(3)		143	143	143	144	143	141	/	/	/	/	/	/	/	/	/	/	/	

NRB - HL			800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
12°C / 7°C	Cooling capacity	(1)	kW	197,8	227,6	247,4	274,9	300,9	358,7	391,8	453,2	494,4	551,6	592,3	650,4	680,4	747,5	783,1	846,6	881,1
	Total power input	(1)	kW	75,2	78,8	90,0	106,2	123,3	132,9	153,6	169,1	193,9	209,0	234,1	246,4	270,0	285,3	309,5	326,9	352,4
	EER	(1)		2,63	2,89	2,75	2,59	2,44	2,7	2,55	2,68	2,55	2,64	2,53	2,64	2,52	2,62	2,53	2,59	2,5
	ESEER	(1)		3,97	4,18	4,07	3,94	3,83	4,03	3,92	4,02	3,92	3,98	3,9	3,99	3,9	3,97	3,9	3,95	3,88
	ESEER HP floating	ESEER improvements of up to 7%																		
	Cooling Energy Class Eurovent	(1)		D	C	C	D	E	C	D	D	D	D	D	D	D	D	D	D	D
40°C / 45°C	Water flow rate	(1)	l/h	34026	39162	42572	47303	51763	61718	67402	77973	85060	94906	101898	111903	117056	128609	134727	145658	151590
	Pressure drop	(1)	kPa	13,66	18,05	15,38	18,95	13,9	19,76	17,53	23,24	22,94	28,5	17,23	20,92	23,07	23,28	25,46	29,2	31,59
	Heating capacity	(2)	kW	210,0	250,6	274,6	305,2	334,5	394,8	431,6	498,2	543,9	610,6	655,1	718,5	758,6	826,4	870,7	939,0	983,1
	Total input power	(2)	kW	67,1	79,6	87,2	98,8	108,3	126,2	136,6	158,2	173,2	195,1	208,6	228,1	243,9	264,9	280,0	300,0	317,1
	COP	(2)		3,13	3,15	3,15	3,09	3,09	3,13	3,16	3,15	3,14	3,13	3,14	3,15	3,11	3,12	3,11	3,13	3,1
	Heating Energy Class Eurovent	(2)		B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	Water flow rate	(2)	l/h	36436	43474	47634	52953	58034	68497	74867	86428	94358	105923	113647	124652	131595	143360	151053	162894	170553
	Pressure drop	(2)	kPa	15,41	21,88	18,94	23,35	17,18	23,94	21,28	28,09	27,76	34,91	21,09	25,53	28,68	28,45	31,47	35,93	39,33
	Performance under average climatic conditions (average)																			
	Pdesignh	(3)		197	235	258	286	314	370	/	/	/	/	/	/	/	/	/	/	/
	SCOP	(3)		3,73	3,75	3,75	3,68	3,68	3,73	/	/	/	/	/	/	/	/	/	/	/
	ηs	(3)		146	147	147	144	144	146	/	/	/	/	/	/	/	/	/	/	/

NRB - HA			800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
12°C / 7°C	Cooling capacity	(1)	kW	206,0	243,5	266,6	296,6	328,9	385,0	424,8	487,7	537,4	600,2	650,5	707,6	744,2	813,8	857,5	926,2	969,3
	Total power input	(1)	kW	71,8	78,3	88,3	102,3	117,1	129,2	147,0	163,7	184,7	201,4	222,0	237,4	257,5	274,0	295,7	311,8	333,1
	EER	(1)		2,87	3,11	3,02	2,9	2,81	2,98	2,89	2,98	2,91	2,98	2,93	2,98	2,89	2,97	2,9	2,97	2,91
	ESEER	(1)		4,03	4,2	4,14	4,05	3,99	4,11	4,04	4,11	4,06	4,11	4,07	4,11	4,04	4,1	4,05	4,1	4,06
	ESEER HP floating	ESEER improvements of up to 7%																		
	Cooling Energy Class Eurovent	(1)		C	A	B	B	C	B	C	B	B	B	B	C	B	B	B	B	B
40°C / 45°C	Water flow rate	(1)	l/h	35443	41907	45883	51035	56601	66249	73093	83918	92479	103286	111940	121760	128057	140035	147562	159372	166799
	Pressure drop	(1)	kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38
	Heating capacity	(2)	kW	214,5	254,7	279,3	310,9	341,4	401,5	439,5	506,9	554,2	621,3	667,4	731,1	772,4	841,4	887,2	956,3	1002,0
	Total input power	(2)	kW	66,6	79,3	86,7	97,2	106,0	124,7	136,9	157,4	171,6	193,6	207,3	227,1	239,9	261,3	275,5	297,0	312,1
	COP	(2)		3,22	3,21	3,22	3,2	3,22	3,22	3,21	3,22	3,23	3,21	3,22	3,22	3,22	3,22	3,22	3,22	3,21
	Heating Energy Class Eurovent	(2)		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(2)	l/h	37211	44177	48453	53942	59231	69649	76243	87932	96134	107785	115779	126836	134003	145970	153911	165899	173822
	Pressure drop	(2)	kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41
	Performance under average climatic conditions (average)																			
	Pdesignh	(4)		196	233	255	284	312	367	/	/	/	/	/	/	/	/	/	/	/
	SCOP	(4)		3,03	3,08	3,03	3,08	3,03	3,10	/	/	/	/	/	/	/	/	/	/	/
	ηs	(4)		118	120	118	120	118	121	/	/	/	/	/	/	/	/	/	/	/

NRB - HE			800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
12°C / 7°C	Cooling capacity	(1)	kW	209,4	241,5	264,5	294,1	326,4	377,3	431,8	488,7	539,7	596,7	647,0	698,1	733,8	797,6	839,6	902,3	943,0
	Total power input	(1)	kW	67,3	77,4	85,1	98,0	112,6	125,3	139,3	157,1	177,5	192,5	214,9	231,2	250,4	269,4	289,5	307,9	327,4
	EER	(1)		3,11	3,12	3,11	3	2,9	3,01	3,1	3,11	3,04	3,1	3,01	3,02	2,93	2,96	2,9	2,93	2,88
	ESEER	(1)		4,26	4,27	4,26	4,19	4,13	4,2	4,26	4,27	4,22	4,26	4,19	4,2	4,14	4,17	4,12	4,14	4,11
	ESEER HP floating	ESEER improvements of up to 7%																		
	Cooling Energy Class Eurovent	(1)		A	A	A	B	B	B	A	A	B	A	B	B	B	B	B	B	C
40°C / 45°C	Water flow rate	(1)	l/h	36040	41557	45515	50604	56169	64922	74308	84092	92865	102678	111331	120132	126269	137242	144473	155263	162273
	Pressure drop	(1)	kPa	15,33	20,32	17,57	21,68	16,36	21,86	21,31	27,04	27,35	33,36	20,57	24,11	26,85	26,51	29,27	33,18	36,2
	Heating capacity	(2)	kW	223,7	258,3	284,0	317,2	349,7	403,8	459,3	521,7	573,0	635,6	684,9	742,5	785,6	849,7	897,1	962,3	1009,3
	Total input power	(2)	kW	69,3	80,5	87,9	98,5	109,0	126,2	143,1	162,5	176,9	198,0	212,0	229,9	244,7	264,7	279,5	299,8	315,4
	COP	(2)		3,23	3,21	3,23	3,22	3,21	3,2	3,21	3,21	3,24	3,21	3,23	3,23	3,21	3,21	3,21	3,21	3,2
	Heating Energy Class Eurovent	(2)		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(2)	l/h	38802	44817	49268	55028	60671	70046	79685	90498	99408	110262	118815	128807	136291	147408	155631	166942	175100
	Pressure drop	(2)	kPa	17,48	23,25	20,27	25,23	18,78	25,04	24,11	30,81	30,84	37,85	23,05	27,27	30,78	30,09	33,42	37,75	41,47
Performance under average climatic conditions (average)																				
	Pdesigngh	(4)		204	236	259	290	320	369	/	/	/	/	/	/	/	/	/	/	/
	SCOP	(4)		3,05	3,08	3,05	3,10	3,03	3,08	/	/	/	/	/	/	/	/	/	/	/
	ηs	(4)		119	120	119	121	118	120	/	/	/	/	/	/	/	/	/	/	/

## Technical data

			800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Electrical data																				
Total input current (cooling)	H	(5)	A	131	150	163	189	207	242	263	296	331	365	398	437	456	504	545	564	606
Total input current (heating)		(5)	A	125	138	158	175	195	212	236	274	304	340	369	397	427	458	484	519	549
Maximum current (FLA)		(5)	A	169	185	210	239	269	298	327	376	417	466	507	549	581	631	672	713	754
Starting current (LRA)		(5)	A	357	412	437	490	519	632	661	645	686	736	776	818	851	900	941	982	1023
Total input current (cooling)	HL	(5)	A	126	133	150	176	203	220	252	280	321	347	390	409	446	473	515	543	585
Total input current (heating)		(5)	A	119	139	152	171	187	216	234	272	299	336	363	394	420	457	484	518	549
Maximum current (FLA)		(5)	A	169	193	210	239	269	306	335	384	425	475	516	557	590	639	680	730	771
Starting current (LRA)		(5)	A	357	421	437	490	519	640	669	654	695	744	785	826	859	909	950	999	1040
Total input current (cooling)	HA	(5)	A	127	141	157	179	203	225	254	285	321	352	389	416	448	479	515	546	582
Total input current (heating)		(5)	A	120	142	155	172	187	219	240	277	303	342	368	401	421	460	485	526	550
Maximum current (FLA)		(5)	A	169	193	210	239	269	306	335	384	425	475	516	557	590	639	680	730	771
Starting current (LRA)		(5)	A	357	421	437	490	519	640	669	654	695	744	785	826	859	909	950	999	1040
Total input current (cooling)	HE	(5)	A	115	132	144	164	187	208	230	261	296	322	362	387	417	449	483	515	547
Total input current (heating)		(5)	A	122	140	153	170	188	216	244	278	305	341	367	396	420	456	482	517	544
Maximum current (FLA)		(5)	A	177	202	218	248	277	315	352	401	442	492	533	574	607	656	697	753	793
Starting current (LRA)		(5)	A	366	429	446	498	528	649	686	671	712	761	802	843	876	926	967	1022	1063
Scroll Compressor																				
Compressors / Circuit	n°			4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Refrigerant	Type			R410A																
Plate Heat exchanger system side (Option Shell&Tube Heat exchanger)																				
Exchanger	Type/n°			Plate/1																
Axial fans																				
Fans	H	n°	4	4	6	6	6	6	6	8	8	10	10	12	12	14	14	14	14	
Air flow rate (cooling)		m³/h	8000	8000	12000	12000	12000	12000	12000	16000	16000	20000	20000	24000	24000	28000	28000	28000	28000	
Fans	HL	n°	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18	
Air flow rate (cooling)		m³/h	6000	9000	9000	9000	9000	12000	12000	15000	15000	18000	18000	21000	21000	24000	24000	27000	27000	
Fans	HA	n°	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18	
Air flow rate (cooling)		m³/h	8000	12000	12000	12000	12000	16000	16000	20000	20000	24000	24000	28000	28000	32000	32000	36000	36000	
Fans	HE	n°	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22	22	
Air flow rate (cooling)		m³/h	9000	12000	12000	12000	12000	15000	18000	21000	21000	24000	24000	27000	27000	30000	30000	33000	33000	
Sound data (cooling mode)																				
Sound power level	H	dB(A)	90	90	92	92	92	92	92	93	93	94	94	95	95	96	96	96	96	
Sound pressure level		dB(A)	57	57	59	59	59	59	59	59	61	61	62	62	62	62	63	63	63	63
Sound power level	HL	dB(A)	83	85	85	85	85	86	86	88	88	90	90	91	91	92	92	92	92	
Sound pressure level		dB(A)	50	52	52	52	52	54	54	55	56	57	58	58	58	59	59	59	59	
Sound power level	HA	dB(A)	90	92	92	92	92	93	93	94	94	95	95	96	96	97	97	97	97	
Sound pressure level		dB(A)	57	59	59	59	59	61	61	62	62	62	62	63	63	64	64	64	64	
Sound power level	HE	dB(A)	85	86	86	86	86	87	88	89	90	91	92	92	92	93	93	93	93	
Sound pressure level		dB(A)	52	54	54	54	54	55	56	57	57	58	59	59	59	60	60	60	60	

(5) Unit standard configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

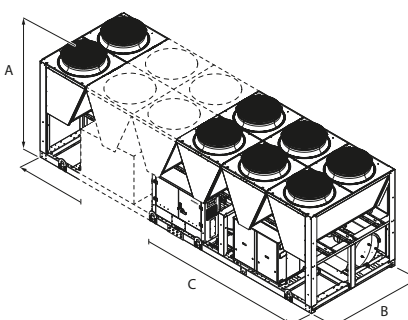
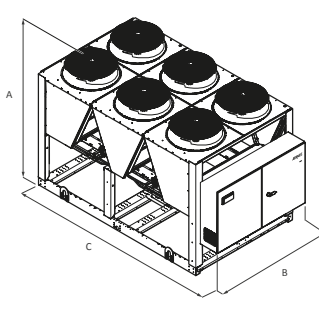
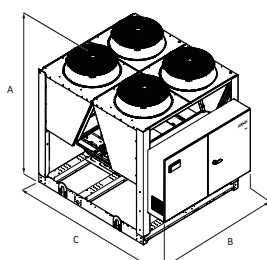
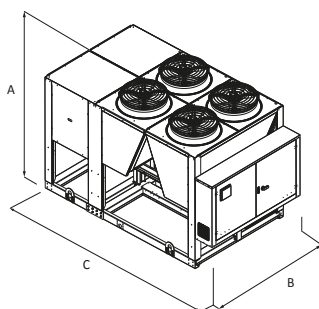
## Dimensions (mm)

(1) Unit with buffer tank  
NRB0800 H/HL/HA  
NRB0900 H

NRB0800 H/HL/HA  
NRB0900 H

NRB0800 HE  
NRB0900÷1200 HL/HA  
NRB1000÷1600 H

NRB0900÷3600 HE  
NRB1400÷3600 HL/HA  
NRB1800÷3600 H



NRB			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Height	A	All	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	All	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depth	C	H°	mm	2780*	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	8330	8330
		HL	mm	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710
		HA	mm	2780*	3970	3970	3970	3970	4760	4760	5950	5950	7140	7140	8330	8330	9520	9520	10710
		HE	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	10710	10710	11900	11900	13090	13090
Weight		H°	kg	2520	2580	3160	3210	3250	3310	3340	4120	4200	4860	4940	5640	5930	6740	6820	7070
		HL	kg	2550	3130	3200	3240	3320	3970	4040	4700	4820	5340	5620	6410	6660	7340	7420	8040
		HA	kg	2550	3130	3200	3240	3320	3970	4040	4700	4820	5340	5620	6410	6660	7340	7420	8040
		HE	kg	3080	3770	3840	3870	3950	4510	5020	5760	5890	6460	6690	7420	7670	8300	8380	9010

\* Depth units Standard or with pump, for the unit with buffer tank the depth is 3970mm

The weight is the standard unit with the plates heat exchanger and without hydronic kit

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## NRL

0800/1800  
heat pump

HFC  
Refrigerant  
R410A

Variable Multi Flow®  
VMF



AERMEC participates in the EUROVENT programme for: LCP Check ongoing validity of certificate online: [www.eurovent-certification.com](http://www.eurovent-certification.com)

Air/Water Reversible heat pumps for external installation  
Scroll compressors, plate heat exchangers and axial fans  
Cooling capacity 183 - 470kW  
Heating capacity 228 - 526kW



- HIGH EFFICIENCIES ALSO AT PARTIAL LOADS
- FAST AND EASY INSTALLATION
- NIHT MODE

### Characteristics

Reversible heat pumps for external installation for the production of chilled/ heated water with high performance and low electric absorption scroll compressors, axial fans, external copper coils with aluminium fins, system-side plate heat exchanger.

In the units with desuperheater, but in cooling-only operation, it is possible to produce free hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paint.

#### Version

- NRL\_H Standard heat pumps
- NRL\_HL Standard heat pumps Low noise version
- NRL\_HA High efficiency version
- NRL\_HE High efficiency version Low noise version

**Operating limits:** Work at full load down to -15°C external air temperature in winter season, up to 46°C in summer season. Hot water production up to 55°C (for more details please refer to the technical documentation)

technical documentation)

- Units with two refrigerant circuits designed to reach the maximum performance at full load, granting high efficiencies also at partial loads and assuring continuity in case of stop of one of the two circuits.
- Water filter and high and low pressure transducers are standard supplied. The flow switch is standard in all the configurations for compact versions (0800-1200 H/HL), for the other sizes and configurations it is provided only with the hydronic-kit.
- Possibility of integrated hydronic kit which includes the main hydraulic components; it is available in different configurations with or without buffer tank, one or two pumps high and low head.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the

alarms and their log.

- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

**Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate.**

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.
- **C-TOUCH** Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- **MULTICHILLER\_PCO:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common

browser; 4 versions available:

- **AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
- **AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
- **AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
- **AVX:** anti-vibration support, to be fitted below

the sheet metal base of the unit.

#### Accessories factory fitted only

- **DRE:** Current soft starter device, Available only with power supply 400V/3N.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **PRM1:** It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.
- **COMPATIBILITY with the VMF SYSTEM** For more information on the system refer to the manual.

## Accessory Compatibility

Mod. NRL	Vers.	0800	0900	1000	1250	1404	1504	1655	1800
AER485P1	Alls	*	*	*	*	*	*	*	*
PGD1	Alls	*	*	*	*	*	*	*	*
C-TOUCH	Alls	*	*	*	*	*	*	*	*
AERWEB300	Alls	*	*	*	*	*	*	*	*
MULTICHILLER_PCO	Alls	*	*	*	*	*	*	*	*
DCPX	(1) H	65	65	65	65	66	66	68	68
	(1) HL	standard	standard	standard	standard	standard	standard	standard	standard
	(1) HA	66	66	66	68	68	68	68	68
GP	(1) HE	standard	standard	standard	standard	standard	standard	standard	standard
	(2) H/HL	10 (x3)	10 (x3)	10 (x4)	10 (x4)	350	350	350	350
AVX "00"	HA/HE	260	260	260	350	350	350	500	500
	H/HL	701	707	713	713	722	722	733	730
AVX "01...04"	HA/HE	704	710	716	719	725	730	734	737
	H/HL	702	708	714	717	723	728	728	728
AVX (P1-P2-P3-P4)	HA/HE	705	711	711	720	726	731	735	738
	H/HL	703	709	715	718	724	729	729	732
	HA/HE	706	712	712	721	727	732	736	736
Accessories factory fitted only									
DRE	Alls	801	901	1001	1251	1404	1504	1655	1801
RIF	H/HL	87	89	91	91	92	92	93	94
	HA/HE	88	90	92	92	92	92	93	94
PRM1	Alls	*	*	*	*	*	*	*	*

(1) DCPX Standard in the models with desuperheater; In the low noise versions; Not necessary fields with ventilatori inverter

(2) (x3)(x4) the number in brackets indicates the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

<b>Campo</b>	<b>Code</b>	<b>15-16</b>	<b>Hydronic kit (4)</b>
<b>1,2,3</b>	<b>NRL</b>	<b>00</b>	Without hydronic kit
<b>4,5,6,7</b>	<b>Size</b>	<b>01</b>	n°1 low head pump and buffer tank
	0800-0900-1000-1250-1404-1504-1655-1800	<b>02</b>	n°2 low head pump and buffer tank
<b>8</b>	<b>Expansion valve:</b>	<b>03</b>	n°1 high head pump and buffer tank
	° Standard (leaving water temperature down to 4°C)	<b>04</b>	n°2 high head pump and buffer tank
	<b>X</b> Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures	<b>05</b>	n°1 low head pump and buffer tank (with holes for immersion heaters)
<b>9</b>	<b>Model</b>	<b>06</b>	n°2 low head pump and buffer tank (with holes for immersion heaters)
	<b>H</b> Heat pumps	<b>07</b>	n°1 low high pump and buffer tank (with holes for immersion heaters)
<b>10</b>	<b>Heat recovery</b>	<b>08</b>	n°2 low high pump and buffer tank (with holes for immersion heaters)
	° Without recovery	<b>09</b>	double hydraulic circuit
	<b>D</b> With desuperheater (3)	<b>10</b>	double hydraulic circuit with immersion heater
<b>11</b>	<b>Version</b>	<b>P1</b>	n°1 low head pump
	° Standard	<b>P2</b>	n°2 low head pump
	<b>L</b> Standard in low noise operation	<b>P3</b>	n°1 high head pump
	<b>A</b> High efficiency	<b>P4</b>	n°2 high head pump
	<b>E</b> High efficiency in low noise operation		
<b>12</b>	<b>Coil</b>		
	° In aluminium		
	<b>R</b> In copper		
	<b>S</b> In tinned copper		
	<b>V</b> In painted aluminium-copper (epoxy paint)		
<b>13</b>	<b>Fans</b>		
	° Standard		
	<b>J</b> Inverter		
<b>14</b>	<b>Power supply</b>		
	° 400V/3/50Hz with circuit breakers		

(3) The desuperheater can be used exclusively in the cold operation

(4) The buffer tank with holes and supplementary electric heaters leave the factory with plastic protection caps. Before loading the system, if the installation of an electric heater is not envisaged it is compulsory to replace the plastic caps.

## Technical data

NRL - H			0800	0900	1000	1250	1404	1504	1655	1800
		V/ph/Hz	400V/3/50Hz							
12°C / 7°C	Cooling capacity	(1) kW	200	221	261	299	332	366	421	452
	Total input power	(1) kW	82	95	102	121	141	160	168	181
	EER	(1)	2,44	2,33	2,55	2,46	2,35	2,28	2,51	2,50
	ESEER	(1)	3,85	3,66	3,67	3,63	3,50	3,44	3,45	3,53
	Cooling Energy Class Eurovent	(1)	E	E	D	E	E	F	D	D
40°C / 45°C	Water flow rate	(1) l/h	34519	38126	44995	51522	57189	63028	72645	77969
	Pressure drop	(1) kPa	46	45	50	57	40	40	47	46
	Heating capacity	(2) kW	228	257	295	342	386	429	470	505
	Total input power	(2) kW	76	86	98	113	128	143	157	168
	COP	(2)	2,99	2,98	3,02	3,03	3,02	3,00	2,99	3,00
	Heating Energy Class Eurovent	(2)	C	C	B	B	B	B	C	B
	Water flow rate	(2) l/h	39460	44501	50935	59103	66752	74226	81353	87438
	Pressure drop	(2) kPa	61	62	65	78	54	55	59	58
	Performance under average climatic conditions (Average)									
		Pdesignh	(3)	192	217	248	288	325	361	/
		SCOP	(3)	3,40	3,38	3,43	3,43	3,45	3,43	/
		ηs	(3)	133	132	134	134	135	134	/

NRL - HL			0800	0900	1000	1250	1404	1504	1655	1800
12°C / 7°C	Cooling capacity	(1) kW	183	199	236	264	301	331	372	396
	Total input power	(1) kW	91	106	113	137	155	175	188	205
	EER	(1)	2,02	1,88	2,09	1,93	1,94	1,89	1,98	1,93
	ESEER	(1)	3,79	3,66	3,66	3,56	3,42	3,39	3,39	3,37
	Cooling Energy Class Eurovent	(1)	G	G	G	G	G	G	G	G
40°C / 45°C	Water flow rate	(1) l/h	31600	34348	40702	45511	51865	57017	64058	68180
	Pressure drop	(1) kPa	39	37	41	45	33	34	37	36
	Heating capacity	(2) kW	228	257	295	342	386	429	470	505
	Total input power	(2) kW	76	86	98	113	128	143	157	168
	COP	(2)	2,99	2,98	3,02	3,03	3,02	3,00	2,99	3,00
	Heating Energy Class Eurovent	(2)	C	C	B	B	B	B	C	B
	Water flow rate	(2) l/h	39460	44501	50933	59103	66752	74226	81353	87438
	Pressure drop	(2) kPa	61	62	65	78	54	55	59	58
	Performance under average climatic conditions (Average)									
		Pdesignh	(3)	192	217	248	288	325	361	/
		SCOP	(3)	3,40	3,38	3,43	3,43	3,45	3,43	/
		ηs	(3)	133	132	134	134	135	134	/

NRL - HA			0800	0900	1000	1250	1404	1504	1655	1800
12°C / 7°C	Cooling capacity	(1) kW	210	238	260	313	350	386	435	470
	Total input power	(1) kW	74	83	95	110	127	144	152	164
	EER	(1)	2,84	2,86	2,73	2,85	2,76	2,68	2,86	2,87
	ESEER	(1)	4,01	3,90	3,82	3,96	3,80	3,72	3,74	3,71
	Cooling Energy Class Eurovent	(1)	C	C	C	C	C	D	C	C
40°C / 45°C	Water flow rate	(1) l/h	36292	41108	44892	54180	60372	66736	75164	81184
	Pressure drop	(1) kPa	54	56	54	61	48	48	54	54
	Heating capacity	(2) kW	234	264	295	346	390	435	486	526
	Total input power	(2) kW	75	85	95	112	126	141	155	166
	COP	(2)	3,12	3,12	3,12	3,09	3,10	3,09	3,14	3,17
	Heating Energy Class Eurovent	(2)	B	B	B	B	B	B	B	B
	Water flow rate	(2) l/h	40076	45236	50396	59168	66736	74476	83248	89956
	Pressure drop	(2) kPa	68	68	68	75	58	60	66	66
	Performance under average climatic conditions (Average)									
		Pdesignh	(3)	198	223	248	292	328	367	/
		SCOP	(3)	3,53	3,53	3,53	3,50	3,53	3,50	/
		ηs	(3)	138	138	138	137	138	137	/

NRL - HE			0800	0900	1000	1250	1404	1504	1655	1800
12°C / 7°C	Cooling capacity	(1) kW	193	212	230	283	318	354	397	424
	Total input power	(1) kW	82	95	108	123	141	159	169	184
	EER	(1)	2,36	2,23	2,13	2,29	2,25	2,22	2,34	2,31
	ESEER	(1)	3,92	3,87	3,78	3,93	3,77	3,66	3,72	3,74
	Cooling Energy Class Eurovent	(1)	E	F	F	F	F	F	E	E
40°C / 45°C	Water flow rate	(1) l/h	33317	36580	39672	48774	54785	60967	68352	73161
	Pressure drop	(1) kPa	47	45	43	51	40	41	45	44
	Heating capacity	(2) kW	234	265	295	346	390	435	486	526
	Total input power	(2) kW	75	85	95	112	126	141	155	166
	COP	(2)	3,11	3,13	3,11	3,09	3,10	3,08	3,13	3,17
	Heating Energy Class Eurovent	(2)	B	B	B	B	B	B	B	B
	Water flow rate	(2) l/h	40503	45718	50933	59798	67447	75269	84135	90914
	Pressure drop	(2) kPa	68	69	69	76	58	60	66	66
	Performance under average climatic conditions (Average)									
		Pdesignh	(3)	198	223	248	292	328	367	/
		SCOP	(3)	3,53	3,53	3,53	3,50	3,53	3,50	/
		ηs	(3)	138	138	138	137	138	137	/

### Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW



## Technical data

			0800	0900	1000	1250	1404	1504	1655	1800
Electrical data										
Total input current (cooling)	H	(5) A	142	166	189	208	249	286	305	319
	HL	(5) A	153	177	200	226	269	308	328	348
	HA	(5) A	136	158	180	196	235	273	286	304
	HE	(5) A	145	169	192	211	251	292	306	324
Total input current (heating)	H	(5) A	136	156	179	193	227	261	279	290
	HL	(5) A	136	156	179	193	227	261	279	290
	HA	(5) A	138	157	177	197	231	265	282	293
	HE	(5) A	138	157	177	197	231	282	282	293
Maximum current (FLA)	H/HL	(5) A	173	195	221	265	282	312	349	398
	HA/HE	(5) A	177	199	221	274	290	320	357	406
Starting current (LRA)	H/HL	(5) A	348	404	430	533	616	646	683	666
	HA/HE	(5) A	352	408	430	542	624	654	691	674
Scroll Compressor										
Compressors / Circuit		n°	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2
Refrigerant		Type	R410A							
Heat exchanger system side										
Exchanger		Type/n°	Plate/1							
hydraulic connections (In/Out)		Ø	3"	3"	3"	3"	4"	4"	4"	4"
Axial fans										
Fans	H/HL	n°	3	3	4	4	4	4	6	6
	HA/HE	n°	4	4	4	6	6	6	8	8
Air flow rate (cooling)	H	m³/h	64500	63750	85600	80800	87400	86800	124200	122400
	HL	m³/h	45200	44600	59900	56600	65500	69400	86900	85700
	HA	m³/h	85600	84600	83600	126000	124200	122400	168000	165600
	HE	m³/h	59920	59220	60610	88200	90000	91800	117600	115920
Sound data (cooling mode)										
Sound power level		H	dB(A)	88.5	88.5	90.5	93.5	91.0	90.5	94.0
Sound pressure level		H	dB(A)	56.5	56.5	58.5	61.5	59.0	58.5	62.0
Sound power level		HL	dB(A)	85.5	85.5	87.5	90.5	88.0	87.5	91.0
Sound pressure level		HL	dB(A)	53.5	53.5	55.5	58.5	56.0	55.5	59.0
Sound power level		HA	dB(A)	88.5	88.5	88.5	91.5	91.0	91.5	94.0
Sound pressure level		HA	dB(A)	56.5	56.5	56.5	59.5	59.0	58.5	62.0
Sound power level		HE	dB(A)	83.0	83.0	83.5	86.0	85.5	85.0	88.5
Sound pressure level		HE	dB(A)	51.0	51.0	51.0	54.0	53.5	53.0	56.5

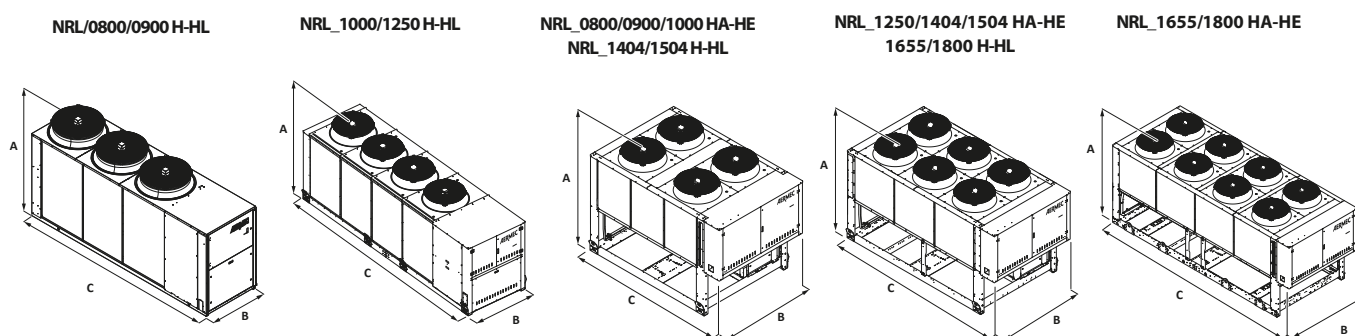
(5) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



Mod. NRL	U.M.	Vers.	800	900	1000	1250	1404	1504	1655	1800
Height	(mm)	A	H/HL	1975	1975	1975	1975	2450	2450	2450
		HA/HE	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	H/HL	1500	1500	1500	1500	2200	2200	2200
		HA/HE	2200	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	H/HL	4355	4355	5355	5355	4250	4250	4250
		HA/HE	3400	3400	3400	4250	4250	4250	5750	5750
Weight empty	(kg)	H	1800	1940	2170	2320	2930	3140	3220	3330
		HL	1800	1950	2180	2320	2940	3150	3230	3340
		HA	2150	2300	2460	2750	2990	3190	3680	3800
		HE	2160	2310	2470	2760	3000	3200	3690	3810

**Warning:** the weights refer to versions without hydronic module integrated

# CL

**025/200**  
cooling only

**HFC**  
Refrigerant  
**R410A**



Aermec participate in the EUROVENT program: LCP  
the products are present on the site  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

*Variable Multi Flow*  
**VMF**

**Air/Water chillers for indoor installation**  
**Scroll compressors, plate heat exchangers and plug fan**  
**Cooling Capacity from 5,82 to 40,34 kW**



- **STANDARD VERSION**
- **VERSION WITH HYDRONIC KIT**
- **FAN PLUG-FAN**

## Characteristics

Chillers for indoor installation for chilled water production with high performance scroll compressors and low electric absorption, axial fans, external copper coils with aluminum fins, plate heat exchangers.

In the units (with desuperheater) it is also possible to produce free-hot water. The basement, the structure and the panelling are in steel treated with polyester anti-corrosion paints.

### Versions available:

**CL\_°** Standard

**CL\_P** With pump

**CL\_A** With pump, and buffer tank

### Operational limits

Work at full load up to 42°C external air temperature, (for more details please refer to the technical documentation)

- Compressors isolator and mains isolator standard on all models
- Horizontal or vertical air discharge site adjustable for all sizes
- Plastic directional air discharge hood for sizes 050 to 090
- Galvanised steel directional air discharge hood for the other sizes
- High Efficiency Scroll Compressor
- Water filter and flow switch standard on all versions

- Plug fans with EC Inverter motors  
Through continuous fan speed control permits operation in cooling mode with external temperatures down to -10°C and in heating mode with external temperatures up to 42°C
- Electronic controller with start timers and optimisation of defrost cycles
- High efficiency plate heat exchanger
- Anti-freeze electric heater standard for the buffer tank

## Accessories

- **MODU-485BL**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300**: The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:  
**AERWEB300-6**: Web server to monitor and remote control maximum 6 units on RS485 network;  
**AERWEB300-18**: Web server to monitor and remote control maximum 18 units on RS485 network;  
**AERWEB300-6G**: Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;  
**AERWEB300-18G**: Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.
- **MULTICONTROL**: Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and

installed in the same hydraulic system.

For complete control the following accessories are available:

**SPLW: System water temperature sensor.** In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

**VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**

- **PR3**: Simplified remote panel. Permits control of the basic unit functions (on/off and change of operating mode, diagnostics and alarm reset). Maximum distance permitted is 150 m with screened cable.
- **AERSET**: The AERSET accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected,

based on a 0-10V MODBUS input signal.  
**Mandatory accessory**: AER485 or MODU-485A

- **CLPA**: Galvanised steel plenum to be installed on the condenser coil. **Facilitates duct installations. Not available with accessoires GPCL for size from 025 to 090**
- **VT**: Anti-vibration mounts.

### Accessories factory fitted only

- **GPCL**: Protective grille. Protects the external condenser coil from damage.
- **DRE**: Electronic soft starter device reducing starting current by about 30%. Only for unit 400V/3/50Hz
- **KR**: Anti-freeze electric heater for the plate heat exchanger.

### COMPATIBILITÀ con il SISTEMA VMF

Per maggiori informazioni sul sistema fare riferimento alla documentazione dedicata.



## Accessory compatibility

CL	vers	25	30	40	50	70	80	90	100	150	200
MODU-485BL	All	.	.	.	.	.	.	.	.	.	.
AERWEB300	All	.	.	.	.	.	.	.	.	.	.
MULTICONTROL	All	.	.	.	.	.	.	.	.	.	.
SPLW	All	.	.	.	.	.	.	.	.	.	.
SDHW	All	.	.	.	.	.	.	.	.	.	.
PR3	All	.	.	.	.	.	.	.	.	.	.
AERSET	All	.	.	.	.	.	.	.	.	.	.
CLPA	(1) All	1	2	2	2	2	2	2	3	3	3
GPCL	All	1	2	2	2	2	2	2	3	3	3
BDX	P	5	5	5	5	5	5	5	-	-	-
	A	5	5	5	6	6	6	6	-	-	-
VT	° / P	9	9	9	9	9	9	9	15	15	15
	A	15A	15A	15A	15A	15A	15A	15A	15	15	15
<b>Accessories factory fitted only</b>											
DRE	(2)	5	5	5	5	5	5	5	5 (x2)	5 (x2)	5 (x2)
KR		2	2	2	2	2	2	2	2	2	2

(1) Not available with accessoires GPCL for size from 025 to 090

(2) Only for unit 400V/3/50Hz

## Unit configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

- Code**
- 1,2** CL
- 3,4,5** **Size**  
025-030-040-050-070-080-090-100-150-200
- 6** **Model**  
° Only cooling
- 7** **Execution**  
° Standard  
**L** Low noise
- 8** **Version**  
° Standard  
**P** With pump  
**A** Buffer tank
- 9** **Heat recovery**  
° Without recovery  
**D** With desuperheater
- 10** **Coil**  
° Aluminium  
**R** Copper  
**S** Tinned copper  
**V** Treated aluminium
- 11** **Field of use**  
° Standard (leaving water temperature down to 4°C)  
**Z** Low leaving liquid (from 4°C down to up to 0°C)  
**Y** Low leaving liquid (from 0°C down to -6°C) (6)
- 12** **Evaporator**  
° Standatd  
**C** Condensing unit
- 13** **Power supply**  
**M** 230V/1/50Hz (for size from 020 to 040)  
° 400V/3N/50Hz

## Technical Data

CL - °			025	030	040	050	070	080	090	100	150	200	
			V/ph/Hz	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V	
12°C / 7°C	Cooling capacity	(1)	kW	5,82	7,11	8,80	12,65	16,28	18,3	20,14	26,16	32,86	40,34
	Total power input	(1)	kW	2,23	2,70	3,62	4,37	5,58	6,78	6,93	8,99	11,51	14,57
	EER*			2,61	2,63	2,43	2,89	2,92	2,70	2,91	2,91	2,85	2,77
	EER	(1)		2,79	2,79	2,54	3,13	3,11	2,84	3,08	3,09	3,05	2,92
	ESEER	(1)		2,87	2,90	2,67	3,18	3,21	2,97	3,20	4,21	4,13	4,01
	Cooling Energy Class Eurovent	(1)		B	B	C	A	A	A	A	A	A	A
	Water flow rate	(1)	l/h	1009	1234	1525	2191	2820	3170	3487	4538	5701	7009
	Pressure drop	(1)	kPa	19	26	25	27	29	30	29	45	53	72

CL - P/A				025	030	040	050	070	080	090	100	150	200
12°C / 7°C	Cooling capacity	(1)	kW	5,87	7,18	8,89	12,80	16,47	18,51	20,37	26,71	33,68	41,33
	Total power input	(1)	kW	2,27	2,72	3,61	4,35	5,52	6,71	6,84	9,03	11,69	14,67
	EER*	(1)		2,59	2,64	2,46	2,94	2,98	2,76	2,98	2,96	2,88	2,82
	EER			2,77	2,80	2,56	3,18	3,17	2,90	3,16	2,85	2,91	2,74
	ESEER	(1)		2,85	2,91	2,70	3,23	3,28	3,04	3,28	4,28	4,17	4,08
	Cooling Energy Class Eurovent	(1)		B	B	C	A	A	A	A	A	A	A
	Water flow rate	(1)	l/h	1009	1234	1525	2191	2820	3170	3487	4538	5701	7009
	Useful head	(1)	kPa	58	49	50	79	74	73	71	82	131	122

CL - °L				025	030	040	050	070	080	090	100	150	200
12°C / 7°C	Cooling capacity	(1)	kW	5,65	6,90	8,53	12,14	15,63	17,57	18,54	24,09	31,56	37,27
	Total power input	(1)	kW	2,24	2,71	3,62	4,42	5,62	6,83	7,52	9,77	11,60	14,63
	EER*			2,52	2,55	2,36	2,75	2,78	2,57	2,47	2,47	2,72	2,55
	EER	(1)		2,65	2,66	2,43	2,88	2,89	2,68	2,55	2,55	2,85	2,64
	ESEER	(1)		2,67	2,70	2,50	2,91	2,95	2,73	2,61	3,54	3,91	3,66
	Cooling Energy Class Eurovent	(1)		B	B	C	A	A	B	C	C	A	B
	Water flow rate	(1)	l/h	979	1197	1479	2104	2707	3043	3208	4175	5473	6472
	Pressure drop	(1)	kPa	18	25	24	25	27	28	25	38	49	66

CL - °LP/LA				025	030	040	050	070	080	090	100	150	200
12°C / 7°C	Cooling capacity	(1)	kW	5,70	6,97	8,62	12,29	15,82	17,78	18,75	24,60	32,35	38,20
	Total power input	(1)	kW	2,28	2,73	3,62	4,41	5,58	6,77	7,45	9,84	11,81	14,78
	EER*			2,50	2,55	2,38	2,79	2,84	2,63	2,52	2,50	2,74	2,58
	EER	(1)		2,63	2,66	2,46	2,92	2,94	2,74	2,61	2,58	2,87	2,68
	ESEER	(1)		2,65	2,71	2,52	2,95	3,01	2,79	2,67	3,59	3,94	3,71
	Cooling Energy Class Eurovent	(1)		B	B	C	A	A	B	C	C	A	B
	Water flow rate	(1)	l/h	979	1197	1479	2104	2707	3043	3208	4175	5473	6472
	Useful head	(1)	kPa	59	50	52	82	77	75	77	91	137	129

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

\* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

			025	030	040	050	070	080	090	100	150	200	
Electrical data													
230V	Total input currente (cooling)	(2)	A	10,1	12,9	16,9	/	/	/	/	/	/	
	Maximum current (FLA)	(2)	A	21,6	24,6	24,7	/	/	/	/	/	/	
	Starting current (LRA)	(2)	A	66,6	87,6	117,6	/	/	/	/	/	/	
400V	Total input currente (cooling)	(2)	A	4,8	5,1	7,5	8,5	10,2	12,0	12,8	16,7	19,7	25,3
	Maximum current (FLA)	(2)	A	11,1	11,6	12,6	13,7	15,4	17,0	20,4	27,4	30,8	40,8
	Starting current (LRA)	(2)	A	37,6	40,6	71,6	77,2	77,2	77,2	105,2	90,9	92,6	125,6
Scroll Compressor													
Compressors / circuit			n°/n°	1/1	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1
Refrigerant			Type	R410A									
Heat exchanger system side													
Exchanger			Type/n°	Plate/1									
hydraulic connections (In/Out)			Ø	1"1/4									
Fans Plug-fan													
Fan			Type/n°	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2
Air flow rate	°	m³/h	4000	4000	4000	6500	6500	6500	7500	10000	12000	12000	
	L	m³/h	3000	3000	3000	4000	4000	5000	5000	6000	8500	8500	
High static pressure			Pa	50	50	50	80	80	80	80	100	100	
Sound data - chiller (cooling)													
Sound power level			° dB(A)	78	78	78	73	73	73	76	74	79	79
Sound pressure level			° dB(A)	46	46	46	41	41	41	44	42	47	47
Sound power level			L dB(A)	71	71	71	69	69	69	69	66	72	72
Sound pressure level			L dB(A)	39	39	39	37	37	37	37	34	40	40
Sound data - delivery (cooling)													
Sound power level			° dB(A)	78	78	78	78	78	78	81	78	83	83
Sound pressure level			° dB(A)	46	46	46	46	46	46	49	47	52	52
Sound power level			L dB(A)	71	71	71	68	68	68	68	63	73	73
Sound pressure level			L dB(A)	39	39	39	36	36	36	36	32	41	41

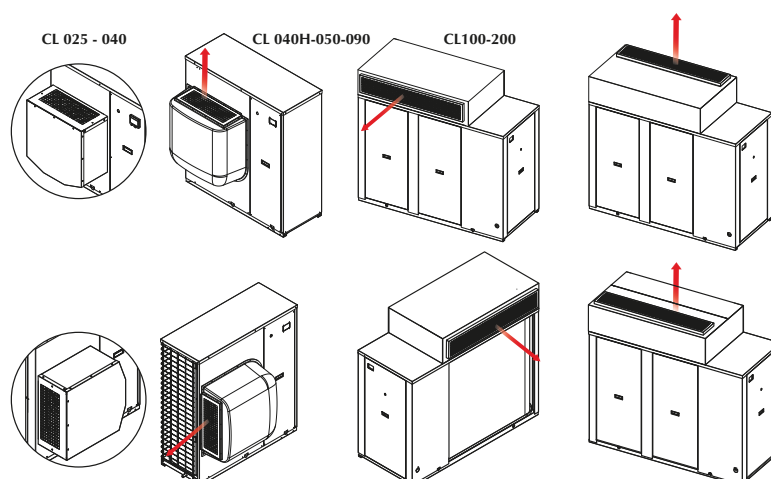
(2) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

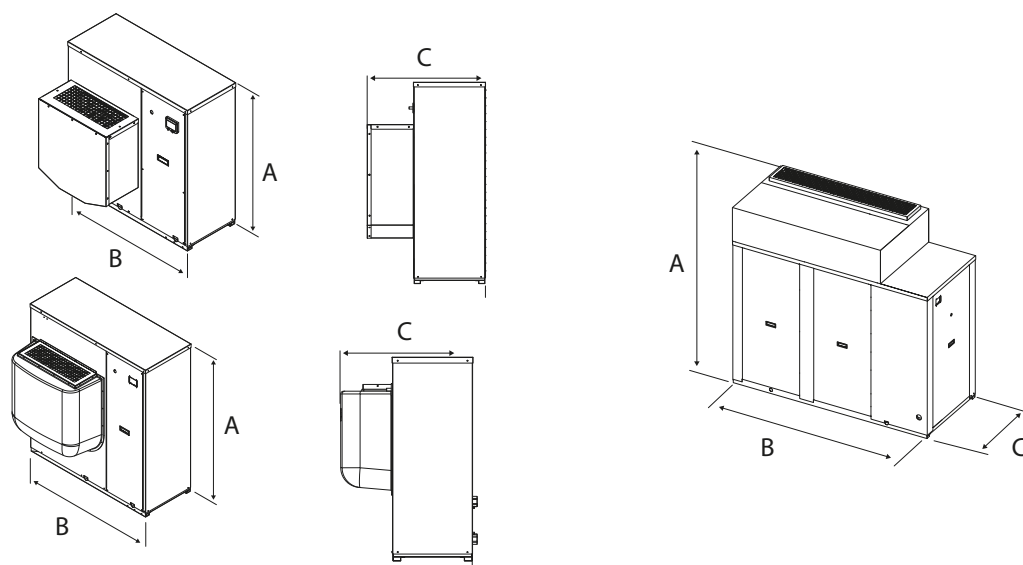
**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Discharge hood possible configurations (site modified)



## Dimensions (mm)



CL standard and low noise			025	030	040	050	070	080	090	100	150	200
° (without hydronic kit)												
Height	A	mm	1028	1281	1281	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1005	1006	1006	1160	1160	1160	1160	1897	1897	1897
Length	C	mm	702	754	754	798	798	798	798	801	801	801
P (with pump)												
Height	A	mm	1028	1281	1281	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1005	1006	1006	1160	1160	1160	1160	1897	1897	1897
Length	C	mm	702	754	754	798	798	798	798	801	801	801
A (with buffer tank)												
Height	A	mm	1028	1281	1281	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1366	1458	1458	1610	1610	1610	1610	1897	1897	1897
Length	C	mm	702	754	754	798	798	798	798	801	801	801
Weight												
CL - °		kg	127	160	160	208	210	210	212	469	471	475
CL - P		kg	133	166	166	217	225	225	221	482	487	492
CL - A		kg	157	201	201	252	260	260	256	532	537	542

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

**CL**  
**025/200**

**Air cooled chiller and heat pump with plug fan**  
**Cooling Capacity from 6 to 38 kW**  
**Heating capacity from 7 to 44 kW**

**Variable Multi Flow**

**VMF**

**HFC**  
Refrigerant  
**R410A**



Aermec participates in the EUROVENT Program: LCP The products of interest can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **HEAT PUMP OPTIMISED FOR HEATING: PRODUCTION OF HOT WATER UP TO 60°C**
- **HEATING OPERATION WITH EXTERNAL TEMPERATURES FROM -15°C TO 42°C**
- **INTERFACES WITH VARIABLE MULTIFLOW VMF SYSTEM**
- **EVAPORATING AND CONDENSING CONTROL STANDARD**
- **INVERTER PLUG FAN**
- **DOMESTIC HOT WATER (DHW) PRODUCTION WITH EXTERNAL TEMPERATURES FROM -15°C TO 42°C**

## Characteristics

- Cooling only and heat pump models "H"
- Manufactured with refrigerant R410A
- Versions available:
  - "0" Standard
  - "P" With pump, expansion tank and water filter
  - "A" With pump, expansion tank, water filter and buffer tank
- All versions are available for the production of chilled water down to -6°C (see unit configuration option)
- Compressors isolator and mains isolator standard on all models
- Horizontal or vertical air discharge site adjustable for all sizes
- Plastic directional air discharge hood for sizes 050 to 090
- Galvanised steel directional air discharge hood for the other sizes
- High Efficiency Scroll Compressor
- Compressor crank case heater standard
- Water filter and flow switch standard on all versions
- Plug fans with EC Inverter motors conforming to regulation EU 327/2011
- Through continuous fan speed control permits operation in cooling mode with external temperatures down to -10°C and in heating mode with external temperatures up to 42°C
- Electronic controller with start timers and optimisation of defrost cycles
- High efficiency plate heat exchanger
- Plate heat exchanger anti-freeze electric heater "KR" standard on heat pump "H" models
- Condensate drain tray standard on heat pump "H" models
- Anti-freeze electric heater standard for the buffer tank

## Accessories

- **AERSET:** The accessory allows the automatic compensation of the operating setpoint of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory:** AER485 or MODU-485A
  - **MODU-485BL:** RS-485 interface for supervising systems with MODBUS protocol. (accessory mandatory for the production of domestic hot water).
  - **DRE:** Electronic soft starter. Reduces starting current by about 30%. Factory fitted only.
  - **KR:** Plate heat exchanger anti-freeze electric heater (only available for cooling only versions)  
**Factory fitted only.**
  - **PR3:** Simplified remote panel. Permits control of basic unit functions and alarm notification. Remote mounted with shielded cable up to 30 m distance.
  - **VT:** Anti-vibration mounts.
  - **CLPA:** Galvanised steel plenum to be installed on the condenser coil. Facilitates duct installations.
  - **GPCL:** Protective grille. Protects the external condenser coil from damage.
  - **KR B4/B5/B6:** Electric base heater to prevent the formation of ice (only available for heat pump versions).
  - **BSKW:** External electric heater kit of various capacities with single and three phase power supplies:
    - BS4KW230M (4kW, 230V/1/50Hz)
    - BS6KW230M (6kW, 230V/1/50Hz)
    - BS6KW400T (6kW, 400V/3/50Hz)
    - BS9KW400T (9kW, 400V/3/50Hz)
  - **MULTICONTROL:** can be used as a remote panel for a single unit or to simultaneously control several chillers or heat pumps (up to 4) installed in the same hydraulic system, fitted with our MODUCONTROL controller.
- For complete control the following accessories are available:
- **SPLW:** System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.
  - **SDHW:** Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced.
  - **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
    - AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
    - AERWEB300-18: Web server to monitor and

remote control max. 18 units in RS485 network;  
 - AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;  
 - AERWEB300-18G: Web server to monitor and

remote control max. 18 units in RS485 network with integrated GPRS modem;  
 • **COMPATIBILITY with the VMF SYSTEM**  
**For more information on the system refer to the manual.**

CL	ver.	25	30	40	50	70	80	90	100	150	200
<b>MODU-485BL</b>	(1) All	*	*	*	*	*	*	*	*	*	*
<b>AERWEB300</b>	All	*	*	*	*	*	*	*	*	*	*
<b>MULTICONTROL</b>	All	*	*	*	*	*	*	*	*	*	*
<b>SPLW</b>	All	*	*	*	*	*	*	*	*	*	*
<b>SDHW</b>	All	*	*	*	*	*	*	*	*	*	*
<b>PR3</b>	All	*	*	*	*	*	*	*	*	*	*
<b>AERSET</b>	All	*	*	*	*	*	*	*	*	*	*
<b>BS4KW230M</b>	H	*	*	*	-	-	-	-	-	-	-
<b>BS6KW230M</b>	H	*	*	*	-	-	-	-	-	-	-
<b>BS6KW400T</b>	H	*	*	*	*	*	*	*	*	*	*
<b>BS9KW400T</b>	H	*	*	*	*	*	*	*	*	*	*
<b>CLPA</b>	(2) All	1	2	2	2	2	2	2	3	3	3
<b>GPCL</b>	All	1	2	2	2	2	2	2	3	3	3
<b>BDX</b>	<b>HP</b>	5	5	5	5	5	5	5	-	-	-
	<b>HA</b>	5	5	5	6	6	6	6	-	-	-
<b>VT</b>	<b>H / HP</b>	9	9	9	9	9	9	9	15	15	15
	<b>HA</b>	15A	15A	15A	15A	15A	15A	15A	15	15	15
<b>Accessori montati in fabbrica</b>											
<b>DRE</b>	(3) All	5	5	5	5	5	5	5	5 (x2)	5 (x2)	5 (x2)
<b>KRB4</b>	H	*	*	-	-	-	-	-	-	-	-
<b>KRB5</b>	H	-	-	*	*	*	*	*	-	-	-
<b>KRB6</b>	H	-	-	-	-	-	-	-	*	*	*

(1) Accessory mandatory for the production of domestic hot water

(2) Not available with accessory GPCL only for sizes 025 to 090

(3) Only 400V/3N/50Hz

(4) Standard for the heat pumps

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most particular of system requirements.

<b>Filed</b>	<b>Code</b>	<b>11</b>	<b>Field of use</b>
<b>1,2</b>	CL		° Standard (leaving water temperature down to 4°C)
<b>3,4,5</b>	<b>Size</b>		<b>Z</b> Low temperature (Low leaving liquid from 4°C down to up to 0°C)
	025-030-040-050-070-080-090-100-150-200		<b>Y</b> Low temperature (Low leaving liquid from 0°C down to -6°C)
<b>6</b>	<b>Model</b>	<b>12</b>	<b>Evaporator</b>
	° Cooling Only		° Standatd
	<b>H</b> Heat pumps		<b>C</b> Condensing unit
<b>7</b>	<b>Execution</b>	<b>13</b>	<b>Power supply</b>
	° Standard		<b>M</b> 230V/1/50Hz (from 020 to 040)
	<b>L</b> Low noise (5)		° 400V/3N/50Hz
<b>8</b>	<b>Version</b>		
	° Standard		
	<b>P</b> With pump		
	<b>A</b> With pump and buffer tank (6)		
<b>9</b>	<b>Heat recovery</b>		
	° Without recovery		
	<b>D</b> With desuperheater (7)		
<b>10</b>	<b>Coil</b>		
	° Aluminium		
	<b>R</b> Copper		
	<b>S</b> Tinned copper		
	<b>V</b> Coated aluminium (epoxy paint)		

(5) No Heat pump versions

(6) The units CLH with integrated buffer tank, are not suitable for producing of hot water (DHW)

(7) for cooling only versions from size 050 to 200

## Technical data

CL - H			025	030	040	050	070	080	090	100	150	200
			V/ph/Hz	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,39	8,35	10,34	11,90	13,96	15,49	18,92	23,82	37,43
	Total input power	(1)	kW	2,69	3,13	3,89	4,27	4,93	5,73	6,91	8,36	14,67
	EER	(1)		2,38	2,67	2,66	2,79	2,83	2,70	2,74	2,85	2,55
	ESEER	(1)		2,61	2,93	2,92	3,07	3,11	2,97	3,01	4,12	3,70
	Cooling Energy Class Eurovent	(1)		C	B	B	A	A	A	A	A	B
	Water flow rate	(1)	l/h	1105	1442	1787	2055	2413	2678	3275	4126	6484
40°C / 45°C	Pressure drop	(1)	kPa	13	12	13	11	15	26	26	34	43
	Heating capacity	(2)	kW	7,92	9,79	12,52	14,47	15,95	18,61	21,06	27,98	44,00
	Total input power	(2)	kW	2,39	3,01	3,79	4,22	4,85	5,60	6,71	8,30	14,75
	COP	(2)		3,31	3,25	3,30	3,43	3,29	3,32	3,14	3,37	2,98
	Heating Energy Class Eurovent	(2)		A	A	A	A	A	A	B	A	C
	Water flow rate	(2)	l/h	1406	1740	2113	2476	2727	3181	3597	4772	7346
			Pressure drop	(2)	kPa	19	16	18	21	32	34	42
Performance under average climatic conditions (Average)												
			Pdesignh	(3)		6	8	10	11	12	15	/
			SCOP	(3)		2,63	2,60	2,60	2,70	2,60	2,63	/
			ηs	(3)		102	101	101	105	101	102	/
			Efficiency Energy Class	(5)		A+	A+	A+	A+	A+	A+	/
			Pdesignh	(4)		7	9	11	13	14	16	18
			SCOP	(4)		3,35	3,35	3,43	3,55	3,45	3,53	3,30
			ηs	(4)		131	131	131	139	135	138	129
			Efficiency Energy Class	(5)		A+	A+	A+	A+	A+	A+	A+

CL - HP/HA			025	030	040	050	070	080	090	100	150	200
			V/ph/Hz	230V-400V	230V-400V	230V-400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1)	kW	6,44	8,42	10,44	12,03	14,12	15,67	19,14	24,34	38,31
	Total input power	(1)	kW	2,72	3,14	3,88	4,27	4,91	5,68	6,84	8,43	14,93
	EER	(1)		2,37	2,68	2,69	2,82	2,88	2,76	2,80	2,89	2,57
	ESEER	(1)		2,61	2,95	2,96	3,10	3,16	3,03	3,08	4,18	3,71
	Cooling Energy Class Eurovent	(1)		C	B	B	A	A	A	A	A	B
	Water flow rate	(1)	l/h	1105	1442	1787	2055	2413	2678	3275	4126	6484
40°C / 45°C	Pressure drop	(1)	kPa	64	63	60	98	93	81	75	99	144
	Heating capacity	(2)	kW	7,85	9,70	12,39	14,30	15,76	18,39	20,81	27,41	43,84
	Total input power	(2)	kW	2,40	3,01	3,76	4,20	4,81	5,52	6,62	8,35	14,98
	COP*	(2)		3,27	3,22	3,30	3,40	3,28	3,33	3,14	3,28	2,93
	COP	(2)		3,48	3,40	3,62	3,71	3,52	3,56	3,35	3,5	3,29
	Heating Energy Class Eurovent	(2)		A	A	A	A	A	A	A	A	B
			Water flow rate	(2)	l/h	1406	1740	2113	2476	2727	3181	3597
			Pressure drop	(2)	kPa	57	58	53	93	88	71	70
											81	147
Performance under average climatic conditions (Average)												
			Pdesignh	(3)		6	7	10	11	12	14	/
			SCOP	(3)		2,63	2,60	2,60	2,68	2,58	2,63	/
			ηs	(3)		102	101	101	104	100	102	/
			Efficiency Energy Class	(5)		A+	A+	A+	A+	A+	A+	/
			Pdesignh	(4)		7	8	11	12	14	16	18
			SCOP	(4)		3,35	3,43	3,43	3,63	3,50	3,58	3,30
			ηs	(4)		131	134	134	142	137	140	129
			Efficiency Energy Class	(5)		A+	A+	A+	A+	A+	A+	A+

			025	030	040	050	070	080	090	100	150	200	
Electrical data													
230V	Total input current (cooling)	(6)	A	12,7	15,4	16,0	/	/	/	/	/	/	
	Total input current (heating)	(6)	A	11,8	14,3	15,6	/	/	/	/	/	/	
	Maximum current (FLA)	(6)	A	18,8	23,7	24,0	/	/	/	/	/	/	
	Starting current (LRA)	(6)	A	86,1	95,5	96,1	/	/	/	/	/	/	
400V	Total input currente (cooling)	(6)	A	5,5	6,3	6,7	7,7	8,4	9,8	13,4	14,3	21,3	26,6
	Total input currente (heating)	(6)	A	5,5	6,2	6,5	7,6	8,2	9,3	12,7	14,3	19,5	26,5
	Maximum current (FLA)	(6)	A	11,0	12,0	11,9	13,5	14,7	15,2	20,4	27,0	30,3	40,8
	Starting current (LRA)	(6)	A	44,6	44,6	57,2	64,2	74,2	94,2	105,2	77,7	109,3	125,6
Compressor													
Compressor	Type/n°		Scroll/1	Scroll/1	Scroll/1	Scroll/1	Scroll/1	Scroll/1	Scroll/1	Scroll/1	Scroll/2	Scroll/2	Scroll/2
Circuit	n°		1	1	1	1	1	1	1	1	1	1	1
Refrigerant	Type		R410A										
Heat exchanger system side													
Exchanger	Type/n°		Plate/1										
hydraulic connections (In/Out)	Ø		1"1/4										

Date (14511:2013)

\* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for average temperature Applications (55°C)

(4) Efficiencies for low temperature Applications (35°C)

(5) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

(6) Unit standar configuration without hydronic kit

## Technical data

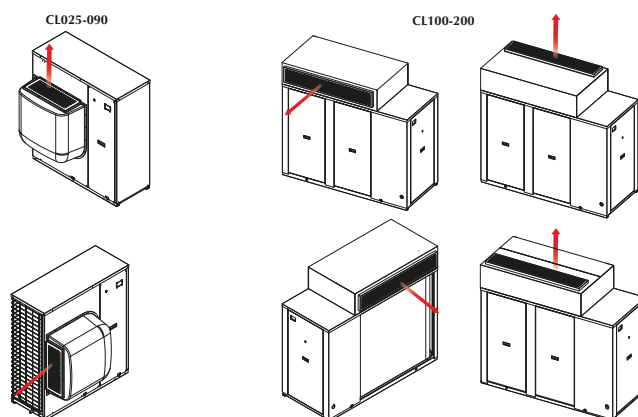
		025	030	040	050	070	080	090	100	150	200
<b>Plug-fan</b>											
Fans	Type/n°	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/1	inverter/2	inverter/2	inverter/2
Air flow rate (cooling)	m³/h	4000	4000	6500	6500	6500	6500	7500	10000	12000	16000
Nominal high static pressure	Pa	50	50	50	80	80	80	80	80	100	100
<b>Sound data chiller (cooling mode)</b>											
Sound power level	dB(A)	78	78	73	73	73	73	76	74	79	80
Sound pressure level	dB(A)	46	46	41	41	41	41	44	42	47	48
<b>Sound data Delivery (cooling mode)</b>											
Sound power level	dB(A)	78	78	78	78	78	78	81	78	83	85
Sound pressure level	dB(A)	46	46	46	46	46	46	49	47	52	54

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

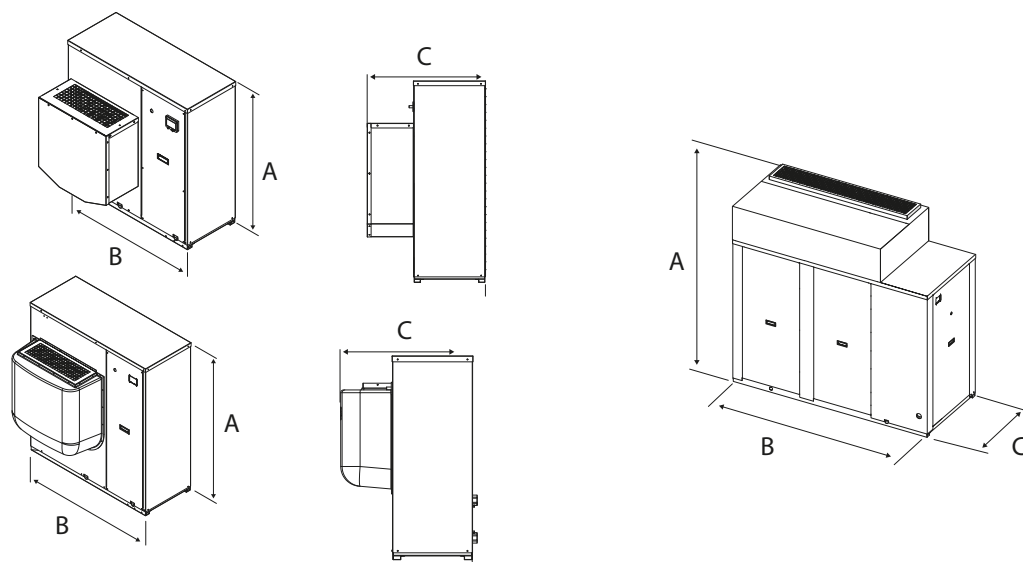
**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Discharge hood possible configurations (site modified)



## Dimensional data (mm)



<b>CL standard and low noise</b>			025	030	040	050	070	080	090	100	150	200
<b>H (without hydronic kit)</b>												
Height	A	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
Depth	C	mm	702	702	798	798	798	798	798	801	801	801
<b>HP (with pump)</b>												
Height	A	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
Depth	C	mm	702	702	798	798	798	798	798	801	801	801
<b>HA (with Storage tank)</b>												
Height	A	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
Width	B	mm	1366	1366	1610	1610	1610	1610	1610	1897	1897	1897
Depth	C	mm	702	702	798	798	798	798	798	801	801	801
<b>Weight</b>												
CL - H		kg	142	142	229	229	240	240	234	504	527	515
CL - HP		kg	148	148	239	239	250	250	243	517	543	531
CL - HA		kg	172	172	274	274	284	284	279	567	593	581

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



## NLC

0280/1250  
only cooling

HFC  
Refrigerant  
R410A



Aermec participates in the EUROVENT Program: LCP The products of interest can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable Multi Flow®  
VMF



Chillers Air/Water for indoor installation  
Scroll compressors, plate exchangers and plug-fans brushless - EC  
Cooling capacity from 52÷318kW

- HIGH EFFICIENCY ALSO AT PARTIAL LOADS
- COOLING CIRCUIT WITH CASING
- COMPLETE AIR FLOW VERSATILITY
- HIGH EFFICIENCY PLUG-FANS
- NIGHT MODE

### Features

The NLC pumps are reversible heat pumps, designed and manufactured for the production of chilled water in residential / commercial buildings.

The units are equipped with high efficiency scroll compressors, plug-fans, external copper coils with aluminium louvers, plate heat exchangers on the system side. In the units (with desuperheater), there is also the possibility of producing hot water for free. The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.

#### Versions

**NLC** ° Standard  
**NLC\_A** High efficiency  
**NLC\_E** Silenced high efficiency

**Operating range:** Work up to 46°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation

- The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.
- The possibility of using the electronic thermostatic valve brings significant benefits, especially when the heat pump is working at partial loads to the benefit of the unit's energy efficiency.
- Electric resistance for the evaporator as stand-ard.
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available, with or without storage tank.
- The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional centrifugal fans, they do not feature belt and

pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

- Horizontal or vertical air flow.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
- Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile.
- Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** the AERWEB device allows the remote control of a chiller by means of a common PC through Ethernet connection, via a common browser; 4 models available:  
**AERWEB300-6:** Web server for monitoring and controlling maximum 6 RS485 network devices;  
**AERWEB300-18:** Web server for monitoring and controlling maximum 18 RS485 network devices;  
**AERWEB300-6G:** Web server for monitoring and controlling maximum 6 RS485 network devices with integrated GPRS modem;  
**AERWEB300-18G:** Web server for monitoring and controlling maximum 18 RS485 network devices with integrated GPRS modem;
- **C-TOUCH** Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- **PGD1:** Allows you to control the chiller at a distance.
- **MULTICHILLER\_PCO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.
- **FLG:** Flanges for ducts.
- **FL:** Flow switch.
- **FILW:** Water filter

**Attention, the flow switch and the water filter must be mounted; failure to do so will void the warranty.**

#### Accessories mounted in the factory;

- **DRE:** Plate peak current reduction electronic device.
- **RIFNLC:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **KRQ:** Anti-condensate electric board resistance.
- **KRA:** Storage tank antifreeze resistance.
- **COMPATIBILITY with the VMF SYSTEM**  
For further information on system, refer to specific documentation.

## Accessories compatibility

Mod. NLC		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AERWEB300		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
C-TOUCH		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_PCO		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FL		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
FILTROW		DN50	DN50	DN50	DN50	DN65	DN65	DN65	DN65	DN65	DN65	DN80	DN80	DN80	DN80	DN80
FLG	A/E	1	1	1	1	2 (x2)	2 (x2)	2 (x2)	2 (x2)	1 (x2)	1+2(x2)	2 (x4)	2 (x4)	2 (x4)	2 (x4)	2 (x4)
	°	1	1	1	1	1	2 (x2)	2 (x2)	2 (x2)	1 (x2)	1 (x2)	1 (x2)	1+2(x2)	2 (x4)	2 (x4)	2 (x4)
VT	00	17	17	17	17	-	-	-	-	-	-	-	-	-	-	-
	P1-P8	13	13	13	13	-	-	-	-	-	-	-	-	-	-	-
	01-08	11	11	11	11	-	-	-	-	-	-	-	-	-	-	-
AVX °	00	-	-	-	-	437	421	421	421	424	440	440	444	431	431	431
	P1-P3	-	-	-	-	438	421	421	422	425	425	442	445	432	432	432
	P2-P4	-	-	-	-	438	422	422	422	426	426	443	445	433	433	433
	01-03	-	-	-	-	439	423	423	423	427	441	441	446	435	434	434
	02-04	-	-	-	-										436	436
AVX A/E	00	-	-	-	-	421	421	421	421	424	428	431	431	431	431	431
	P1-P3	-	-	-	-	421	421	422	422	425	429	432	432	432	432	432
	P2-P4	-	-	-	-	422	422	422	422	426	429	433	433	433	433	433
	01-03	-	-	-	-	423	423	423	423	427	430	434	434	434	434	434
	02-04	-	-	-	-	423	423	423	423	427	430	435	435	435	436	436
<b>Accessories mounted in the factory</b>																
DRE		275	275	300	350	552	602	652	675	350 (x2)	552 (x2)	552 (x2)	602 (x2)	652 (x2)	675 (x2)	1250
RIFNLC		1	1	2	3	1	1	1	4	3 (x2)	3 + 2	1 (x2)	1 (x2)	1 (x2)	4 (x2)	3 (x2)
KRQ		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
KRA		1	1	1	1	2	2	2	2	2	2	2	2	2	2	2

(x2) indicates the quantity to be ordered

## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field	Description	15-16	Integrated hydronic kit
1,2,3	NLC	00	Without hydronic kit
4,5,6,7	Size	01	Storage tank and single low static pressure pump
	0280-0300-0330-0350-0550-0600-0650-0675-0700-0750-0800-0900-1000-1100-1250	02	Storage tank, single low static pressure pump and reserve pump
8	field of application	03	Storage tank and single high static pressure pump
	° Standard (water produced up to +4°C)	04	Storage tank, single high static pressure pump and reserve pump
	Z Thermostatic valve (water produced up 0 to + 4°C) (1)	05	Storage tank and single low static pressure pump
	Y Thermostatic valve (water produced up -6 to + 0°C) (1)	06	Storage tank, single low static pressure inverter pump and reserve inverter pump
	X Electronic expansion valve (water produced up +4 °C) Contact the head office for lower temperatures	07	Storage tank and single high static pressure inverter pump
9	Model	08	Storage tank, single high static pressure inverter pump and reserve inverter pump
	° Only cooling	P1	Single low static pressure pump
C	Condensing unit	P2	Single low static pressure pump and reserve pump
10	Heat recovery	P3	Single high static pressure pump
	° Without heat recovery	P4	Single high static pressure pump and reserve inverter pump
D	With desuperheater	P5	Single low static pressure inverter pump
T	With Total recovery (2)	P6	Single low static pressure inverter pump and reserve inverter pump
11	Versions	P7	Single high static pressure inverter pump
	° Standard	P8	Single high static pressure inverter pump and reserve inverter pump
A	High efficiency		
E	Silenced high efficiency		
12	Coils		
	° Aluminium		
R	Copper - Copper		
S	Copper - Thinned		
V	Painted aluminium		
13	Fan		
J	EC inverter		
14	Power supply		
	° 400V/3/50Hz with magnet circuit breakers		
1	220V/3/50Hz with magnet circuit breakers		

(1) Not available for the model with heat recovery. "D and T"

(2) Not available for condensing units, and for models with storage tank and pumps (01 - 08)

(3) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

## Technical data

NLC - °			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250	
12°C /7°C		V/ph/Hz	400V/3N/50Hz															
	Cooling capacity	(1)	kW	52,10	57,00	62,70	75,20	94	111,8	122,7	137,2	151,2	169,9	189,3	219,7	242,1	276,7	305,8
	Total power input	(1)	kW	20,70	23,70	24,60	29,30	39,6	44,8	50,6	54,2	59,3	67,2	79,6	87,3	100,7	108,5	122,3
	EER*	(1)		2,52	2,41	2,55	2,57	2,37	2,50	2,42	2,53	2,55	2,53	2,38	2,52	2,40	2,55	2,50
	EER			2,71	2,59	2,71	2,72	2,47	2,64	2,55	2,66	2,70	2,66	2,48	2,65	2,52	2,67	2,61
	ESEER	(1)		3,79	3,62	3,84	3,85	3,56	3,74	3,64	3,79	3,80	3,71	3,54	3,75	3,58	3,80	3,67
	Cooling Energy Class Eurovent	(1)		B	C	B	B	C	B	C	B	B	B	C	B	C	B	B
	Water flow rate	(1)	l/h	8976	9834	10814	12967	16236	19281	21166	23680	26083	29294	32649	37884	41736	47712	52763
Pressure drop	(1)	kPa	19	22	28	27	43	27	31	43	37	30	38	35	35	41	48	

NLC - A			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250	
12°C / 7°C	Cooling capacity	(1)	kW	53,90	59,20	66,70	78,40	106,1	119,2	129	146	157,2	177,6	209,3	232,8	257,1	289,9	318,4
	Total power input	(1)	kW	19,80	21,90	23,70	28,00	38,2	43,4	45,3	52,9	56	61,1	76,1	85,5	90,3	106,6	116,7
	EER*	(1)		2,72	2,70	2,81	2,80	2,78	2,75	2,85	2,76	2,81	2,91	2,75	2,72	2,85	2,72	2,73
	EER			2,95	2,92	2,98	2,96	2,93	2,90	2,97	2,89	2,98	3,12	2,90	2,85	2,97	2,84	2,84
	ESEER	(1)		4,11	4,07	4,24	4,19	4,17	4,12	4,27	4,14	4,18	4,27	4,10	4,05	4,24	4,05	4,01
	Cooling Energy Class Eurovent	(1)		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1)	l/h	9298	10218	11504	13530	18293	20558	22255	25195	27100	30614	36081	40125	44315	49976	54903
	Pressure drop	(1)	kPa	20	24	22	30	25	30	36	36	25	25	33	33	35	37	43

NLC - E				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
12°C / 7°C	Cooling capacity	(1)	kW	52,10	57,90	64,10	73,20	102,8	115,4	124,3	142,3	150,8	171,1	200,9	224,4	247,5	282,2	309,9
	Total power input	(1)	kW	19,60	21,80	23,90	27,80	37,8	43	46,1	52,8	55,9	60,7	75,2	85,6	91	106,3	116,5
	EER*	(1)		2,66	2,66	2,68	2,63	2,72	2,68	2,70	2,70	2,70	2,82	2,67	2,62	2,72	2,65	2,66
	EER			2,81	2,82	2,80	2,75	2,80	2,79	2,75	2,77	2,82	2,96	2,75	2,69	2,78	2,73	2,73
	ESEER	(1)		3,95	3,91	4,07	4,03	4,00	3,95	4,10	3,97	4,02	4,10	3,93	3,89	4,07	3,89	3,85
	Cooling Energy Class Eurovent	(1)		B	B	B	B	A	B	A	A	A	A	B	B	A	B	B
	Water flow rate	(1)	l/h	8991	9988	11055	12633	17714	19900	21440	24544	25988	29485	34635	38681	42666	48647	53434
	Pressure drop	(1)	kPa	19	23	20	26	23	29	34	34	23	24	31	30	33	35	41

### Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

\* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

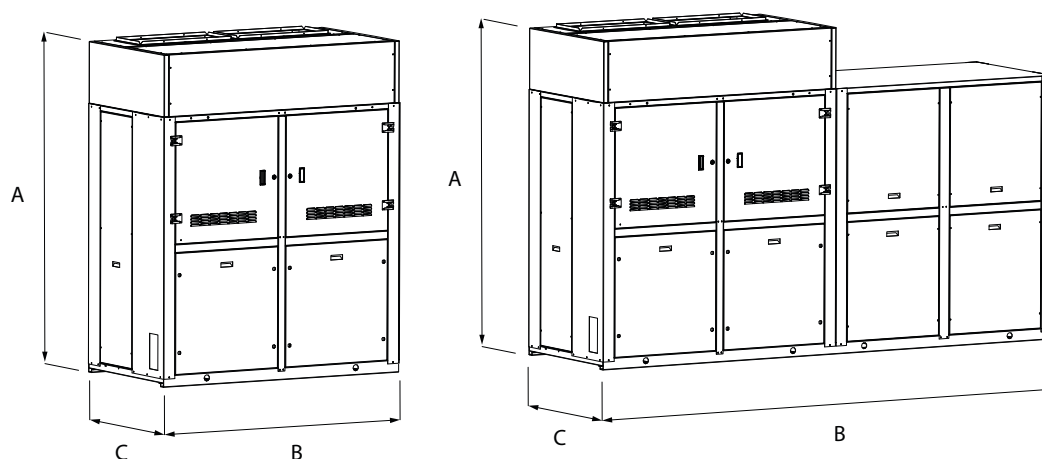
			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250	
<b>Electrical data</b>																		
Total input current (cooling)	(2)	°	A	38,1	42,3	45,7	56,7	68,2	76,5	84,6	92,3	112,7	121,1	135,9	148,1	168,6	181	207,7
Maximum current (FLA)	(2)		A	52	56	62	73	103	111	119	132	146	169	206	222	238	263	289
Starting current (LRA)	(2)		A	128	130	133	216	261	273	281	358	290	346	353	372	400	489	515
Total input current (cooling)	(2)		A	36,3	40,3	43,2	53,5	63	71,4	73	86,6	107,1	113,4	125,6	139,1	145,9	173,1	197,7
Maximum current (FLA)	(2)	A	A	52	56	62	73	92	111	119	132	146	158	183	210	238	263	289
Starting current (LRA)	(2)		A	128	130	133	216	273	273	281	358	290	357	376	384	400	489	515
Total input current (cooling)	(2)		A	35,6	39,1	43,2	52,8	61,8	68,9	73,1	85,2	106,3	112	123,1	138,3	145,9	170,1	196,5
Maximum current (FLA)	(2)		E	A	52	56	62	73	92	111	119	132	146	158	183	210	238	263
Starting current (LRA)	(2)		A	128	130	133	216	273	273	281	358	290	357	376	384	400	489	515
<b>Scroll Compressor</b>																		
Compressor / Circuito	Type/n°		2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant	Type		R410A															
<b>Heat exchanger system side</b>																		
Exchanger	Type/n°		Plate/1															
hydraulic connections (In/Out)	Ø		2"	2"	2"	2"	2"	2"	2"	2"	2"	2" 1/2	2" 1/2	3"	3"	3"	3"	3"
<b>Fans Plug-fan inverter EC</b>																		
Fan	°	n°	2	2	2	2	2	4	4	4	4	4	4	6	8	8	8	8
Air flow rate		m³/h	21600	24000	21150	23600	23200	34050	34050	38200	47150	46750	46350	62150	68100	66650	71750	71750
Fan	A	n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8	8
Air flow rate		m³/h	21150	23600	19400	22050	27700	33350	27150	32750	44050	57900	55350	55350	54300	65450	65450	65450
Fan	E	n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8	8
Air flow rate		m³/h	15000	18400	14650	16450	14900	22200	14600	21750	32900	41900	29850	29850	29200	43500	43500	43500
High static pressure	Pa		120															
<b>Sound data - chiller (cooling)</b>																		
Sound power level		dB(A)	83	86	83	85	88	84	84	86	88	90	91	87	87	89	89	89
Sound pressure level		dB(A)	66	68	66	68	70	66	66	68	70	71	72	68	67	69	69	69
Sound power level		dB(A)	84	86	82	85	83	85	83	85	88	86	86	88	86	88	88	88
Sound pressure level		dB(A)	66	69	65	67	65	67	65	67	69	66	66	68	66	68	68	68
Sound power level		dB(A)	77	80	77	78	75	79	75	78	81	80	78	82	78	81	81	81
Sound pressure level		dB(A)	59	63	59	61	57	60	57	60	63	61	58	62	58	62	62	62

(2) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



The designs are representative of some structural work, more information is available in the technical documentation

Mod. NLC (3)					0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Height	A	°	mm		2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
			mm	00	1750	1750	1750	1750	1750	3150	3150	3150	3500	3500	3500	4900	6300	6300	6300
Width	B	A/E	°	00	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
		A/E	°	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	4250	4250	4250	4900	6300	6300	6300
			°	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
			°	01÷08	mm	3400	3400	3400	3400	3500	4150	4150	4150	5250	5250	5250	5900	7300	7300
			°	01÷08	mm	3400	3400	3400	3400	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
Length	C		mm		950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

(3) For the size of chillers with total recovery contact Aermec

Mod. NLC (2)					0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Height	A	°	mm		2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
			mm	00	1750	1750	1750	1750	1750	3150	3150	3150	3500	3500	3500	4900	6300	6300	6300
Width	B	A/E	°	00	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
		A/E	°	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	4250	4250	4250	4900	6300	6300	6300
			°	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	4250	4250	4250	6300	6300	6300	6300
			°	01÷08	mm	3400	3400	3400	3400	3500	4150	4150	4150	5250	5250	5250	5900	7300	7300
			°	01÷08	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300
Length	C		mm		950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

## NLC H 0280/1250 heat pump

HFC  
Refrigerant  
**R410A**



Aermec participates in the EUROVENT Program: LCP The products of interest can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

Variable Multi Flow®

VMF

Reversible Air/Water heat pump for indoor installation  
Scroll compressors, plate exchangers and plug-fans EC inverter  
Cooling capacity from 52 - 316kW  
Heating capacity from 56 - 349kW



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **COOLING CIRCUIT WITH CASING**
- **COMPLETE AIR FLOW VERSATILITY**
- **HIGH EFFICIENCY PLUG-FANS**
- **NIGHT MODE**

### Features

The NLC pumps are reversible heat pumps, designed and manufactured for the production of chilled / heated water in residential / commercial buildings.

The units are equipped with high efficiency scroll compressors, plug-fans, external copper coils with aluminium louvers, plate heat exchangers on the system side. In the units (with desuperheater), in the cooling mode, there is also the possibility of producing hot water for free. The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.

#### Versions

**NLC\_HA** High efficiency

**NLC\_HE** Silenced high efficiency

**Operating range:** Work up to 44°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

- The possibility of using the electronic thermostatic valve brings significant benefits, especially when the heat pump is working at partial loads to the benefit of the unit's energy efficiency.
- Electric resistance for the evaporator as standard.
- Condensate drip tray as standard.
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available, with or without storage tank.
- The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction. In addition, compared to conventional

centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

- Horizontal or vertical air flow.
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

- The presence of a programmable timer allows setting time bands of operation and a possible second set-point.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** the AERWEB device allows the remote control of a chiller by means of a common PC through Ethernet connection, via a common browser; 4 models available:  
**AERWEB300-6:** Web server for monitoring and controlling maximum 6 RS485 network devices;  
**AERWEB300-18:** Web server for monitoring and controlling maximum 18 RS485 network devices;  
**AERWEB300-6G:** Web server for monitoring and controlling maximum 6 RS485 network devices with integrated GPRS modem;  
**AERWEB300-18G:** Web server for monitoring and controlling maximum 18 RS485 network devices with integrated GPRS modem;

- **PGD1:** Allows you to control the chiller at a distance.
- **C-TOUCH** Microprocessor adjustment, complete with a 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
- **MULTICHILLER\_PCO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.
- **FLG:** Flanges for ducts.
- **FL:** Flow switch.
- **FILW:** Water filter **Attention, the flow switch and**

**the water filter must be mounted; failure to do so will void the warranty.**

#### Accessories mounted in the factory;

- **DRE:** Plate peak current reduction electronic device.
- **RIFNLC:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **KRB:** Resistance for condensate drip tray.
- **KRQ:** Anti-condensate electric board resistance.
- **KRA:** Storage tank antifreeze resistance.
- **COMPATIBILITY with the VMF SYSTEM**  
For further information on system, refer to specific documentation.

## Accessories compatibility

Mod. NLC_H	.	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
AERWEB300	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PGD1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
C-TOUCH	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
MULTICHILLER_PCO	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FL	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
FILTROW		DN50	DN50	DN50	DN50	DN65	DN65	DN65	DN65	DN65	DN65	DN80	DN80	DN80	DN80	DN80
FLG		1	1	1	1	2	2	2	2	1 (x2)	1 + 2	2 (x2)	2 (x2)	2 (x2)	2 (x2)	2 (x2)
VT	00	17	17	17	17	-	-	-	-	-	-	-	-	-	-	-
	P1-P8	13	13	13	13	-	-	-	-	-	-	-	-	-	-	-
	01-08	11	11	11	11	-	-	-	-	-	-	-	-	-	-	-
AVX	00	-	-	-	-	410	410	410	410	410	416	418	418	420	420	420
	P1-P3	-	-	-	-	410	410	410	410	413	416	418	418	420	420	420
	P2-P4	-	-	-	-	411	411	411	411	414	416	418	418	420	420	420
	01-03	-	-	-	-	412	412	412	412	415	417	419	419	419	419	419
	02-04	-	-	-	-	412	412	412	412	415	417	419	419	419	419	419

### Accessories mounted in the factory

DRE	275	275	300	350	552	602	652	675	350 (x2)	552 (x2)	552 (x2)	602 (x2)	652 (x2)	675 (x2)	1250
RIFNLC	1	1	2	3	1	1	1	4	3 (x2)	3 + 2	1 (x2)	1 (x2)	1 (x2)	4 (x2)	3 (x2)
KRB	21	21	21	21	22	22	22	22	23	24	25	25	25	25	25
KRQ	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
KRA	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2

x2 = Number to order

## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

- |                |  |
|----------------|--|
| <b>Field</b>   | <b>Description</b>   |
| <b>1,2,3</b>   | <b>NLC</b>   |
| <b>4,5,6,7</b> | <b>Sizes</b><br>0280-0300-0330-0350-0550-0600-0650-0675-0700-0750-0800-0900-1000-1100-1250   |
| <b>8</b>       | <b>Scope of application</b><br>° Standard (water produced up to +4°C)<br><b>X</b> Electronic thermostatic valve (water produced up to +4 °C) (1)   |
| <b>9</b>       | <b>Model</b><br><b>H</b> Heat Pump   |
| <b>10</b>      | <b>Heat recovery</b><br>° Without heat recovery<br><b>D</b> With desuperheater (2)   |
| <b>11</b>      | <b>Version</b><br><b>A</b> High efficiency<br><b>E</b> Silenced high efficiency  |
| <b>12</b>      | <b>Coils</b><br>° Aluminium<br><b>R</b> Copper - Copper<br><b>S</b> Copper - Thinned<br><b>V</b> Painted aluminium   |
| <b>13</b>      | <b>Fan</b><br><b>J</b> EC inverter   |
| <b>14</b>      | <b>Power supply</b><br>° 400V/3/50Hz with magnet circuit breakers<br><b>1</b> 220V/3/50Hz with magnet circuit breakers   |
| <b>15-16</b>   | <b>Integrated hydronic kit (3)</b><br><b>00</b> Without hydronic kit<br><b>01</b> Storage tank and single low static pressure pump<br><b>02</b> Storage tank, single low static pressure pump and reserve pump<br><b>03</b> Storage tank and single high static pressure pump<br><b>04</b> Storage tank, single high static pressure pump and reserve pump<br><b>05</b> Storage tank and single low static pressure pump<br><b>06</b> Storage tank, single low static pressure inverter pump and reserve inverter pump<br><b>07</b> Storage tank and single high static pressure inverter pump<br><b>08</b> Storage tank, single high static pressure inverter pump and reserve inverter pump<br><b>P1</b> Single low static pressure pump<br><b>P2</b> Single low static pressure pump and reserve pump<br><b>P3</b> Single high static pressure pump<br><b>P4</b> Single high static pressure pump and reserve inverter pump<br><b>P5</b> Single low static pressure inverter pump<br><b>P6</b> Single low static pressure inverter pump and reserve inverter pump<br><b>P7</b> Single high static pressure inverter pump<br><b>P8</b> Single high static pressure inverter pump and reserve inverter pump |

- (1) Contact the head office for lower temperatures  
 (2) The desuperheater may only be used for the cooling mode  
 (3) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

## Technical data

NLC - HA			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
		V/ph/Hz	400V/3N/50Hz														
12°C / 7°C	Cooling capacity	(1) kW	54,3	60,3	66,6	78,4	102,3	115,1	125,8	143,1	157,9	180,8	201,5	232,0	252,2	286,4	315,6
	Total input power	(1) kW	20,4	22,9	24,8	29,0	38,4	44,0	47,5	55,2	58,1	67,1	75,8	88,3	94,7	110,2	128,8
	EER*	(1)	2,66	2,63	2,68	2,70	2,67	2,61	2,65	2,59	2,72	2,69	2,66	2,63	2,66	2,60	2,45
	EER		2,90	2,87	2,89	2,89	2,89	2,83	2,84	2,77	2,90	2,89	2,88	2,84	2,85	2,78	2,60
	ESEER	(1)	3,99	3,95	4,02	4,10	4,06	3,97	4,03	3,94	4,22	4,17	4,12	4,08	4,12	4,03	3,80
	Cooling Energy Class Eurovent	(1)	B	B	B	A	B	B	B	B	A	B	B	B	B	B	C
	Water flow rate	(1) l/h	9378	10407	11493	13550	17657	19877	21725	24718	27243	31193	34790	40045	43528	49436	54496
40°C / 45°C	Pressure drop	(1) kPa	21	25	23	30	24	29	35	35	26	25	34	34	36	38	44
	Heating capacity	(2) kW	56,50	63,70	70,86	82,77	110,01	122,67	137,32	156,92	168,71	193,88	218,82	245,22	274,04	313,22	349,13
	Total input power	(2) kW	19,49	22,31	24,36	28,26	37,62	42,19	47,03	54,34	56,59	65,97	74,74	84,17	92,59	106,56	119,46
	COP*	(2)	2,90	2,85	2,91	2,93	2,92	2,91	2,92	2,89	2,98	2,94	2,93	2,91	2,96	2,94	2,92
	COP		3,16	3,12	3,14	3,15	3,17	3,16	3,13	3,09	3,19	3,16	3,18	3,16	3,18	3,15	3,11
	Heating Energy Class Eurovent	(2)	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	Water flow rate	(2) l/h	9596	10814	12034	14050	18689	20833	23310	26639	28671	32954	37171	41666	46557	53208	59279
	Pressure drop	(2) kPa	22	27	25	32	27	32	40	41	29	28	38	37	41	43	52
Performance under average climatic conditions (Average)																	
	Pdesignh	(3)	52	59	66	77	102	113	127	145	156	179	202	227	253	290	323
	SCOP	(3)	2,60	2,58	2,60	2,60	2,60	2,58	2,63	2,58	2,65	2,63	2,63	2,58	2,65	2,60	2,63
	ηs	(3)	101	100	101	101	101	100	102	100	103	102	102	100	103	101	102
	Efficiency Energy Class	(4)	A+	A+	A+	/	/	/	/	/	/	/	/	/	/	/	/
	Pdesignh	(5)	52	59	66	/	/	/	/	/	/	/	/	/	/	/	/
	SCOP	(5)	3,28	3,20	3,28	/	/	/	/	/	/	/	/	/	/	/	/
	ηs	(5)	128	125	128	/	/	/	/	/	/	/	/	/	/	/	/
	Efficiency Energy Class	(4)	A+	A+	A+	/	/	/	/	/	/	/	/	/	/	/	/

NLC - HE			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
12°C / 7°C	Cooling capacity	(1) kW	52,0	58,1	63,4	74,8	97,6	110,4	118,3	136,5	150,0	171,9	192,3	223,3	241,6	273,1	304,1
	Total input power	(1) kW	20,7	23,3	25,8	29,8	40,6	46,6	49,6	57,1	59,4	67,9	80,5	91,1	98,0	113,6	129,2
	EER*	(1)	2,51	2,49	2,45	2,51	2,41	2,37	2,39	2,39	2,52	2,53	2,39	2,45	2,47	2,40	2,35
	EER		2,67	2,65	2,58	2,64	2,54	2,5	2,5	2,51	2,65	2,67	2,52	2,59	2,59	2,53	2,47
	ESEER	(1)	3,83	3,79	3,86	3,94	3,90	3,81	3,87	3,78	4,05	4,00	3,96	3,91	3,96	3,87	3,65
	Cooling Energy Class Eurovent	(1)	B	C	C	B	C	C	C	C	B	B	C	C	C	C	C
	Water flow rate	(1) l/h	8977	10032	10946	12919	16848	19061	20424	23568	25875	29653	33199	38543	41708	47144	52532
40°C / 45°C	Pressure drop	(1) kPa	20	24	20	27	20	25	29	30	24	25	33	35	38	42	53
	Heating capacity	(2) kW	56,5	63,7	70,9	82,8	110,0	122,7	137,3	156,9	168,7	193,9	218,8	245,2	274,0	313,2	349,1
	Total input power	(2) kW	19,5	22,3	24,4	28,3	37,6	42,2	47,0	54,3	56,6	66,0	74,7	84,2	92,6	106,6	119,5
	COP*	(2)	2,90	2,85	2,91	2,93	2,92	2,91	2,92	2,89	2,98	2,94	2,93	2,91	2,96	2,94	2,92
	COP		3,16	3,12	3,14	3,15	3,17	3,16	3,13	3,09	3,19	3,16	3,18	3,16	3,18	3,15	3,11
	Heating Energy Class Eurovent	(2)	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
	Water flow rate	(2) l/h	9596	10814	12034	14050	18689	20833	23310	26639	28671	32954	37171	41666	46557	53208	59279
	Pressure drop	(2) kPa	22	27	25	32	27	32	40	41	29	28	38	37	41	43	52
Performance under average climatic conditions (Average)																	
	Pdesignh	(3)	52	59	66	77	102	113	127	145	156	179	202	227	253	290	323
	SCOP	(3)	2,60	2,58	2,60	2,60	2,60	2,58	2,63	2,58	2,65	2,63	2,63	2,58	2,65	2,60	2,63
	ηs	(3)	101	100	101	101	101	100	102	100	103	102	102	100	103	101	102
	Efficiency Energy Class	(4)	A+	A+	A+	/	/	/	/	/	/	/	/	/	/	/	/
	Pdesignh	(5)	52	59	66	/	/	/	/	/	/	/	/	/	/	/	/
	SCOP	(5)	3,28	3,20	3,28	/	/	/	/	/	/	/	/	/	/	/	/
	ηs	(5)	128	125	128	/	/	/	/	/	/	/	/	/	/	/	/
	Efficiency Energy Class	(4)	A+	A+	A+	/	/	/	/	/	/	/	/	/	/	/	/

### Date (14511:2013)

\* The legislation 14511: 2013 from the previous 14511: 2011 provides a different contribution of the fan

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for average temperature Applications (55°C)

(5) Efficiencies for low temperature Applications (35°C)

(4) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW



## Technical data

			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250	
Electrical data																		
Total input current (cooling)	HA	(6)	A	36	41	45	56	68	77	81	96	112	121	136	155	162	192	219
Total input current (heating)		(6)	A	36	40	44	54	65	74	78	91	105	114	129	145	153	179	199
Total input current (cooling)	HE	(6)	A	36	40	45	55	69	77	83	95	111	121	139	153	166	191	218
Total input current (heating)		(6)	A	36	40	44	54	65	74	78	91	105	114	129	145	153	179	199
Maximum current (FLA)		(6)	A	52	56	62	71	103	111	119	132	143	167	206	222	238	264	290
Starting current (LRA)		(6)	A	128	130	133	215	273	273	281	358	287	356	376	384	400	490	516
Compressor																		
Compressor / Circuit		n°	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant		Type	R410A															
Heat exchanger system side																		
Exchanger		Type/n°	Plate/1															
Plug-fan inverter EC																		
Fans	HA	n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8	8
Air flow rate (cooling)		m³/h	23000	26500	25000	27500	42000	47000	44000	50000	53000	64500	84000	94000	88400	102000	102000	
Fans	HE	n°	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8	8
Air flow rate (cooling)		m³/h	17000	19800	17200	20600	30000	35000	31400	38200	41000	48900	60000	70800	64000	77600	88000	
Nominal high static pressure	All	Pa	120															
Sound data chiller (cooling mode)																		
Sound power level	HA	dB(A)	84	88	86	89	85	88	86	90	92	87	88	91	89	93	93	
Sound pressure level		dB(A)	52	56	55	57	53	56	55	58	60	55	56	59	57	60	60	
Sound power level	HE	dB(A)	77	81	78	82	79	81	79	83	85	79	82	84	82	86	86	
Sound pressure level		dB(A)	46	49	46	50	47	49	48	51	53	47	49	52	50	54	54	

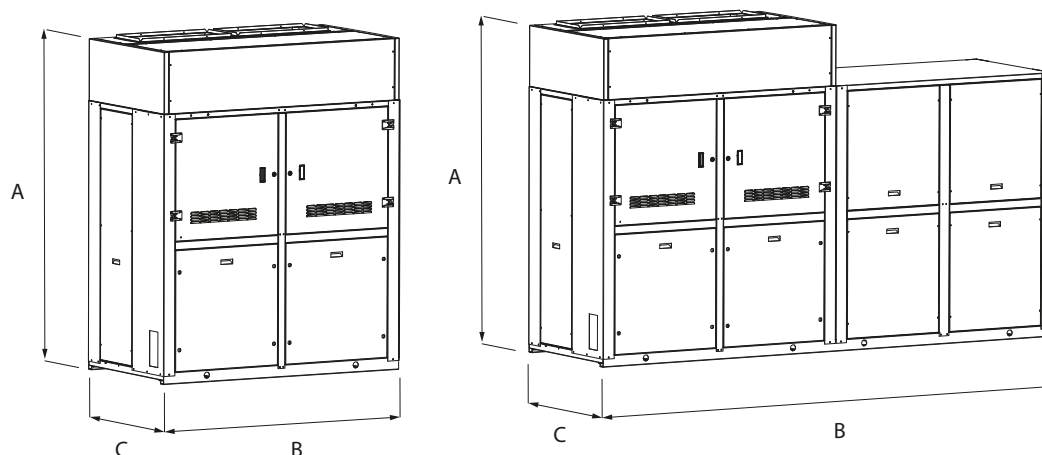
(6) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions



The drawings show some of the steelwork, there is more information available in the technical documentation

Mod. NLC_H	.		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Height	A	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
		00	mm	1750	1750	1750	1750	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
Width	B	P1÷P8	mm	2500	2500	2500	2500	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
		01÷08	mm	3400	3400	3400	3400	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
Depth	C	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Weight	(3)	HA/HE	kg	790	790	828	832	1452	1456	1492	1507	1586	2194	2768	2783	2863	2903

(3) Weight models without hydronic kit

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

# NSM

## 1402/9603 cooling only

HFC  
Refrigerant  
**R134a**



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Air/Water chillers for outdoor installation**  
**Screw compressors, shell and tube heat exchangers and axial fans**  
**Cooling capacity 302 - 2100kW**



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **HP FLOATING: ESEER +5% WITH INVERTER FANS**
- **NIGHT MODE**

### Characteristics

Outdoor chillers for the production of chilled water with high-efficiency screw compressors, with cooling capacity adjustment via continuous modulation. Axial fans, microchannel external coils, plant side shell and tube heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

#### Versions

**NSM\_°** Standard  
**NSM\_L** Standard low noise  
**NSM\_A** High efficiency  
**NSM\_E** High efficiency low noise  
**NSM\_U** Very high efficiency  
**NSM\_N** Very high efficiency low noise

**Range of operation:** Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.

- The possibility of using the electronic thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. It is supplied as standard from size 5202÷6402 and 8403÷9603, optional for all other sizes.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Floating HP:** is supplied as standard on all models. This modulates the fan speed according to the unit load and offers an improved ESEER (beyond the declared values) when applied with variable speed fans (ie. units with DCPX option or inverter fans). **ESEER improvements of up to 5% are obtained with inverter equipped models.**

- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

**"Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate."**

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network

- with integrated GPRS modem;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER\_PCO:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.  
**Standard in to low noise version or with desuperheater.**
- **AVX:** Spring anti-vibration mounts.

### Accessories factory fitted only

- **KRS:** Evaporator trace heating
- **KRSDES/KRSREC:** Electrical resistor for desuperheater or total recovery
- **RIFNSM:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **GP:** Anti-intrusion grids
- **AK: ACOUSTIC KIT.** (only version L/E/N)  
This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

## Compatibility of accessories

Mod. NSM	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502	
AER485P1		·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	
AERWEB300		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
PRV3		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
MULTICHILLER_PCO		·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
DCPX	(1)	°	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
AVX		L	901	901	901	904	905	905	905	903	903	903	903	909	909	907	907	912
		A	901	901	901	904	905	905	905	903	903	903	903	909	909	907	907	912
		E	901	901	902	905	905	903	903	906	906	906	906	907	907	912	910	910
		U	901	901	902	905	905	903	903	906	906	906	906	907	907	912	910	910
		N	902	902	903	903	903	906	906	907	907	907	907	912	910	913	913	917
Accessories factory fitted only																		
KRS	(1)	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
KRS_DES	(1)(2)	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
KRS_REC	(1)(2)	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
RIFNSM	(1)	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502	
GP	(1)	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
AK	(3)	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	·	
Accessories factory fitted only																		
AER485P1		·(x2)	·(x2)	·(x2)	·(x2)	·(x2)	·(x3)	·(x3)	·(x3)	·(x3)	·(x3)	·(x3)						
AERWEB300		·	·	·	·	·	·	·	·	·	·	·						
PRV3		·	·	·	·	·	·	·	·	·	·	·						
MULTICHILLER_PCO		·	·	·	·	·	·	·	·	·	·	·						
DCPX	(1)	°	909	907	907	907	912	914	914	915	916	916	916					
AVX		L	912	912	910	913	913	924	924	925	925	927	926					
		A	912	912	910	913	913	924	924	925	925	927	926					
		E	913	913	920	917	918	925	927	927	928	-	-					
		U	913	913	920	917	918	925	927	927	928	-	-					
		N	918	919	921	922	923	926	-	-	-	-	-					
Accessories factory fitted only																		
KRS	(1)	·	·	·	·	·	·	·	·	·	·	·						
KRS_DES	(1)(2)	·	·	·	·	·	·	·	·	·	·	·						
KRS_REC	(1)(2)	·	·	·	·	·	·	·	·	·	·	·						
RIFNSM	(1)	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603						
GP	(1)	·	·	·	·	·	·	·	·	·	·	·						
AK	(3)	·	·	·	·	·	·	·	·	·	·	·						

(1) Accessories to be defined for compatibility

(2) The accessory is standard equipped with the electric resistance for the evaporator also

(3) The accessory is only available for the "L/E/N" silenced versions

(x2) Indicates the amount to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
<b>1,2,3</b>	<b>NSM</b>
<b>4,5,6,7</b>	<b>Sizes</b> 1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 ( <b>dual circuit</b> ) 3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 ( <b>dual circuit</b> ) 6503-6703-6903-7203-8403-9603 ( <b>triple circuit</b> )
<b>8</b>	<b>Operational limits</b> ° Standard (temperature of water produced up to +4 °C) <b>Y</b> Low temperature (temperature of water produced from +4°C a -8°C) <sup>(4)</sup> <b>X</b> Electronic thermostatic valve (temperature of water produced up to +4 °C) <sup>(5)</sup> <b>Z</b> Low temperature electronic thermostatic valve (temperature of water produced from +4°C a -8°C) <sup>(4)</sup>
<b>9</b>	<b>Model</b> ° Cooling Only <b>C</b> Motor condensing unit <sup>(6)</sup>
<b>10</b>	<b>Heat recovery</b> ° Without heat recovery <b>D</b> With desuperheater <b>T</b> With total recovery <sup>(7)</sup>
<b>11</b>	<b>Version</b> ° Standard <b>L</b> Low noise Standard <b>A</b> High efficiency <b>E</b> Low noise high efficiency <b>U</b> Very high efficiency <b>N</b> Low noise very high efficiency
<b>12</b>	<b>Coils</b> ° Aluminium microchannel <b>O</b> Painted aluminium microchannel <b>R</b> Copper - Copper <b>S</b> Copper - Thinned
<b>13</b>	<b>Fans</b> ° Standard <b>M</b> increased <sup>(8)</sup> <b>J</b> Inverter
<b>14</b>	<b>Power supply</b> ° 400V/3/50Hz with fuses <b>8</b> 400V/3/50Hz with magnet circuit breakers <b>2</b> 230V/3/50Hz with fuses <sup>(9)</sup> <b>4</b> 230V/3/50Hz with magnet circuit breakers <sup>(9)</sup> <b>5</b> 500V/3/50Hz with fuses <sup>(10)</sup> <b>9</b> 500V/3/50Hz with magnet circuit breakers <sup>(10)</sup>
<b>15-16</b>	<b>Integrated hydronic kit</b> <b>00</b> Without hydronic kit <b>PA</b> Pumping unit (pump A) <b>PB</b> Pumping unit (pump B) <b>PC</b> Pumping unit (pump C) <b>PD</b> Pumping unit (pump D) <b>PE</b> Pumping unit (pump E) <b>PF</b> Pumping unit (pump F) <b>PG</b> Pumping unit (pump G) <b>PH</b> Pumping unit (pump H) <b>PI</b> Pumping unit (pump I) <b>PJ</b> Pumping unit (pump J) <b>DA</b> Pumping unit (pump A and stand-by pump) <b>DB</b> Pumping unit (pump B and stand-by pump) <b>DC</b> Pumping unit (pump C and stand-by pump) <b>DD</b> Pumping unit (pump D and stand-by pump) <b>DE</b> Pumping unit (pump E and stand-by pump) <b>DF</b> Pumping unit (pump F and stand-by pump) <b>DG</b> Pumping unit (pump G and stand-by pump) <b>DH</b> Pumping unit (pump H and stand-by pump) <b>DI</b> Pumping unit (pump I and stand-by pump) <b>DJ</b> Pumping unit (pump J and stand-by pump)

### Operation of pumps in parallel

<b>TF</b>	Double static pressure pump (pump F)
<b>TG</b>	Double static pressure pump (pump G)
<b>TH</b>	Double static pressure pump (pump H)
<b>TI</b>	Double static pressure pump (pump I)
<b>TJ</b>	Double static pressure pump (pump J)

(4) The Y/Z option is not compatible with motor condensing units C; with option D and T

(5) sizes from 5202÷6402 and 8403÷9603 come standard with the electronic thermostatic valve

(6) The motor condensing units are not configurable with option D and T, and with the integrated hydronic kit

(7) The models 1402° - 1602° - 1802° with total recovery are not configurable with the integrated hydronic kit

(8) **Increased fans M They are not configurable in size and versions:**

**VERSION <sup>from</sup>** Up NSM2652 to 9603

**VERSIONS "A/L"** Up NSN5202 to 6402

**VERSIONS "A/L"** NSM 9603

(9) 230V/3/50Hz available only for sizes from 1402÷2202

(10) 500V/3/50Hz available only for sizes from 1402÷3202

## Technical Data

Mod NSM			1402	1602	1802	2002	2202	2352	2502	2652
Cooling capacity	°	kW	307	348	396	449	488	524	543	576
	L	kW	302	343	392	428	490	513	537	582
	A	kW	315	359	414	461	509	544	576	620
	E	kW	319	368	417	472	514	542	579	614
	U	kW	331	378	432	481	527	564	589	634
	N	kW	330	375	431	474	516	550	578	620
Total input power	°	kW	105	121	139	153	166	181	194	210
	L	kW	103	117	136	156	168	179	193	203
	A	kW	99	114	134	148	162	174	183	197
	E	kW	102	117	132	150	165	174	186	195
	U	kW	99	114	129	146	161	169	178	190
	N	kW	98	113	128	145	160	169	178	190
EER	°	W/W	2,93	2,88	2,85	2,94	2,93	2,90	2,80	2,74
	L	W/W	2,94	2,93	2,89	2,74	2,92	2,86	2,79	2,87
	A	W/W	3,18	3,16	3,10	3,11	3,14	3,13	3,14	3,14
	E	W/W	3,14	3,14	3,15	3,15	3,11	3,12	3,11	3,15
	U	W/W	3,36	3,33	3,35	3,30	3,27	3,33	3,30	3,33
	N	W/W	3,36	3,31	3,38	3,27	3,22	3,26	3,24	3,26
ESEER	°	W/W	3,85	3,85	3,80	3,90	3,90	3,85	3,85	3,80
	L	W/W	3,98	3,95	3,87	3,88	3,93	3,92	3,92	3,92
	A	W/W	4,07	4,04	3,96	3,97	4,02	4,01	4,02	4,01
	E	W/W	4,15	4,12	4,15	4,09	4,05	4,13	4,09	4,13
	U	W/W	4,25	4,21	4,24	4,18	4,14	4,22	4,18	4,22
	N	W/W	4,27	4,21	4,30	4,16	4,09	4,14	4,12	4,14
ESEER HP floating			Alls	ESEER improvements of up to 5%						
Water flow rate	°	l/h	52940	60070	68350	77550	84280	90320	93610	99370
	L	l/h	52070	59230	67610	73680	84500	88440	92500	100420
	A	l/h	54340	62020	71500	79420	87700	93790	99310	106880
	E	l/h	55020	63440	71880	81320	88500	93500	99770	105880
	U	l/h	57000	65100	74380	82910	90820	97200	101640	109280
	N	l/h	56780	64620	74340	81660	88980	94830	99590	106780
Total pressure drop	°	kPa	27	36	38	49	57	26	28	33
	L	kPa	27	36	38	18	24	25	28	33
	A	kPa	30	39	43	21	26	28	32	37
	E	kPa	15	14	18	21	24	26	30	24
	U	kPa	17	15	19	21	25	28	31	25
	N	kPa	16	15	19	21	24	28	30	25

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			1402	1602	1802	2002	2202	2352	2502	2652		
Electrical data												
Total input current	(1)	°	A	182	207	229	257	281	306	329	356	
	(1)	L	A	173	196	218	254	277	297	319	336	
	(1)	A	A	175	198	223	250	278	298	314	340	
	(1)	E	A	171	196	214	245	272	288	309	324	
	(1)	U	A	173	197	218	248	275	292	309	330	
	(1)	N	A	165	190	207	237	265	281	297	317	
Compressors			type		two screw							
Compressors			n°	2	2	2	2	2	2	2		
Circuits			n°	2	2	2	2	2	2	2		
Refrigerant			type		R134a							
System side exchanger			type		Shell and tube							
exchanger			all	n°	1	1	1	1	1	1		
Fans standard			type		axial							
fans		°	n°	6	6	6	8	8	8	8		
		L	n°	8	8	8	8	10	10	12		
		A	n°	8	8	8	8	10	10	12		
		E	n°	8	8	10	10	10	12	14		
		U	n°	8	8	10	10	10	12	14		
		N	n°	10	10	12	12	12	14	16		
Air flow rate cooling mode			°	m³/h	96000	96000	96000	128000	128000	128000	144000	
			L	m³/h	92000	92000	92000	92000	115000	115000	115000	138000
			A	m³/h	128000	128000	128000	128000	160000	160000	160000	192000
			E	m³/h	92000	92000	115000	115000	115000	138000	138000	161000
			U	m³/h	128000	128000	160000	160000	160000	192000	192000	224000
			N	m³/h	115000	115000	138000	138000	138000	161000	161000	184000
Sound data												
Sound power		°	dB(A)	97	97	97	98	98	98	98		
		L	dB(A)	89	89	89	89	90	91	91		
		A	dB(A)	97	97	98	98	98	98	99		
		E	dB(A)	89	89	90	90	90	91	92		
		U	dB(A)	97	97	98	98	98	99	99		
		N	dB(A)	90	90	91	91	91	91	92		

(1) The electrical data of the versions without hydronic module integrated

### Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Technical Data

Mod NSM			2802	3002	3202	3402	3602	3902	4202	4502
Cooling capacity	°	kW	613	679	723	768	812	904	956	1048
	L	kW	602	663	708	770	825	907	948	1030
	A	kW	658	698	741	799	883	953	1019	1082
	E	kW	651	694	740	795	880	950	1017	1079
	U	kW	674	707	750	810	901	974	1041	1102
	N	kW	658	700	742	802	878	953	1012	1084
Total input power	°	kW	227	233	248	272	298	316	346	360
	L	kW	215	238	261	265	297	316	349	366
	A	kW	208	224	237	253	281	304	329	347
	E	kW	210	224	239	255	284	306	326	347
	U	kW	204	214	228	245	273	295	315	337
	N	kW	204	217	231	248	270	293	316	333
EER	°	W/W	2,70	2,92	2,92	2,82	2,72	2,86	2,76	2,91
	L	W/W	2,79	2,78	2,71	2,90	2,78	2,87	2,72	2,81
	A	W/W	3,16	3,12	3,12	3,15	3,14	3,14	3,10	3,12
	E	W/W	3,10	3,10	3,10	3,12	3,10	3,11	3,12	3,11
	U	W/W	3,30	3,30	3,29	3,30	3,30	3,30	3,30	3,27
	N	W/W	3,22	3,22	3,21	3,24	3,25	3,26	3,21	3,26
ESEER	°	W/W	3,80	3,90	3,85	3,85	3,80	3,90	3,80	3,90
	L	W/W	3,94	3,90	3,89	3,94	3,92	3,92	3,87	3,89
	A	W/W	4,03	3,99	3,99	4,03	4,01	4,01	3,97	3,98
	E	W/W	4,09	4,09	4,07	4,09	4,08	4,09	4,09	4,05
	U	W/W	4,18	4,18	4,16	4,18	4,17	4,18	4,18	4,14
	N	W/W	4,09	4,09	4,08	4,12	4,11	4,11	4,07	4,09
ESEER HP floating			Alls	ESEER improvements of up to 5%						
Water flow rate	°	l/h	105660	117140	124820	132560	140070	155970	164980	180930
	L	l/h	103770	114370	122040	132690	142180	156420	163450	177710
	A	l/h	113420	120390	127660	137790	152180	164390	175850	186660
	E	l/h	112240	119690	127460	137080	151730	163810	175370	186260
	U	l/h	116220	121900	129220	139610	155320	167910	179580	190140
	N	l/h	113450	120680	127920	138210	151390	164440	174590	186920
Total pressure drop	°	kPa	35	39	42	47	38	46	41	48
	L	kPa	31	36	23	23	25	32	34	44
	A	kPa	37	40	25	25	29	36	39	49
	E	kPa	26	29	26	25	29	36	40	49
	U	kPa	28	30	26	26	30	37	42	51
	N	kPa	27	29	26	25	30	37	40	35

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			2802	3002	3202	3402	3602	3902	4202	4502
Electrical data										
Total input current	(1)	° A	381	392	414	447	484	520	573	597
	(1)	L A	354	391	426	429	473	509	567	593
	(1)	A A	355	378	399	421	459	502	547	577
	(1)	E A	347	367	389	411	450	490	529	560
	(1)	U A	352	366	387	410	448	490	530	562
	(1)	N A	339	358	378	399	429	470	513	540
Compressors			type		two screw					
Compressors			n°		2	2	2	2	2	2
Circuits			n°		2	2	2	2	2	2
Refrigerant			type		R134a					
System side exchanger			type		Shell and tube					
Exchanger	°/L/A/E/U	n°	1	1	1	1	1	1	1	1
	N	n°	1	1	1	1	1	1	1	2
Fans standard			type		axial					
fans	°	n°	8	10	10	10	10	12	12	14
	L	n°	12	12	12	14	14	16	16	18
	A	n°	12	12	12	14	14	16	16	18
	E	n°	14	14	14	16	16	18	20	20
	U	n°	14	14	14	16	16	18	20	20
	N	n°	16	16	16	18	20	22	22	26
Air flow rate cooling mode	°	m³/h	144000	180000	180000	180000	180000	216000	216000	252000
	L	m³/h	138000	138000	138000	161000	161000	184000	184000	207000
	A	m³/h	192000	192000	192000	224000	224000	256000	256000	288000
	E	m³/h	161000	161000	161000	184000	184000	207000	230000	230000
	U	m³/h	224000	224000	224000	256000	256000	288000	320000	320000
	N	m³/h	184000	184000	184000	207000	230000	253000	253000	299000
Sound data										
Sound power	°	dB(A)	98	99	100	100	100	101	101	101
	L	dB(A)	91	91	91	91	91	92	93	93
	A	dB(A)	99	99	99	99	99	100	100	100
	E	dB(A)	92	92	92	93	93	93	94	94
	U	dB(A)	99	99	99	100	100	100	101	101
	N	dB(A)	92	92	92	93	93	93	93	94

(1) The electrical data of the versions without hydronic module integrated

### Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Technical Data

Mod NSM			4802	5202	5602	6002	6402	6503	6703	6903
Cooling capacity	°	kW	1096	1165	1192	1234	1323	1390	1436	1576
	L	kW	1074	1120	1181	1251	1292	1393	1434	1601
	A	kW	1157	1211	1273	1349	1399	1459	1529	1678
	E	kW	1157	1204	1264	1320	1387	1462	1525	1666
	U	kW	1182	1231	1299	1359	1417	1502	1576	1689
	N	kW	1167	1216	1265	1315	1365	1450	n.d.	n.d.
Total input power	°	kW	388	403	431	453	460	489	517	560
	L	kW	395	429	443	453	477	492	524	557
	A	kW	372	389	411	433	451	466	493	535
	E	kW	371	388	406	422	444	469	489	534
	U	kW	357	380	401	418	428	453	473	522
	N	kW	353	375	397	410	428	450	n.d.	n.d.
EER	°	W/W	2,82	2,89	2,77	2,72	2,87	2,85	2,78	2,82
	L	W/W	2,72	2,61	2,67	2,76	2,71	2,83	2,74	2,87
	A	W/W	3,11	3,11	3,10	3,12	3,10	3,13	3,10	3,14
	E	W/W	3,12	3,11	3,12	3,13	3,13	3,12	3,12	3,12
	U	W/W	3,31	3,24	3,24	3,25	3,31	3,31	3,33	3,23
	N	W/W	3,31	3,25	3,19	3,20	3,19	3,22	n.d.	n.d.
ESEER	°	W/W	3,85	3,90	3,85	3,80	3,85	3,90	3,80	3,85
	L	W/W	3,89	3,88	3,90	3,89	3,87	3,91	3,87	3,92
	A	W/W	3,98	3,97	3,99	3,98	3,96	4,00	3,96	4,01
	E	W/W	4,10	4,01	4,02	4,02	4,10	4,10	4,12	4,01
	U	W/W	4,18	4,09	4,10	4,11	4,19	4,19	4,22	4,09
	N	W/W	4,10	4,13	4,05	4,07	4,05	4,09	n.d.	n.d.
ESEER HP floating			Alls	ESEER improvements of up to 5%						
Water flow rate	°	l/h	189160	201040	205680	213030	228500	239870	247790	271650
	L	l/h	185350	193220	203720	215910	222970	240090	247230	276220
	A	l/h	199680	208790	219570	232740	241410	251620	263620	289610
	E	l/h	199490	207680	217720	227490	239130	252090	262970	287420
	U	l/h	203880	212380	223920	234170	244270	259100	271780	291410
	N	l/h	201310	209810	218040	226640	235280	249980	n.d.	n.d.
Total pressure drop	°	kPa	42	46	48	55	62	44	46	30
	L	kPa	46	33	36	42	45	33	34	45
	A	kPa	53	38	42	49	52	36	39	49
	E	kPa	36	38	24	24	29	35	40	49
	U	kPa	38	40	26	26	31	37	42	51
	N	kPa	44	44	26	26	30	37	n.d.	n.d.

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			4802	5202	5602	6002	6402	6503	6703	6903
Electrical data										
Total input current	(1)	°	A	641	668	712	749	766	806	927
	(1)	L	A	638	693	716	736	776	793	914
	(1)	A	A	614	647	685	725	758	772	897
	(1)	E	A	598	628	656	686	724	764	861
	(1)	U	A	597	634	671	706	725	762	870
	(1)	N	A	569	605	643	668	700	731	n.d.
Compressors			type	two screw						
Compressors			n°	2	2	2	2	3	3	3
Circuits			n°	2	2	2	2	3	3	3
Refrigerant			type	R134a						
System side exchanger			type	Shell and tube						
Exchanger	°	n°	1	1	1	1	1	1	1	1
	L	n°	1	1	1	1	1	2	2	2
	A	n°	1	1	1	1	1	2	2	2
	E	n°	1	1	2	2	2	2	2	2
	U	n°	1	1	2	2	2	2	2	2
	N	n°	2	2	2	2	2	2	n.d.	n.d.
Ventilatori standard			type	axial						
fans	°	n°	14	16	16	16	18	18	18	20
	L	n°	18	18	20	22	22	24	24	28
	A	n°	18	18	20	22	22	24	24	28
	E	n°	22	22	24	26	28	28	30	30
	U	n°	22	22	24	26	28	28	30	30
	N	n°	28	30	32	32	32	34	n.d.	n.d.
Air flow rate cooling mode	°	m³/h	252000	288000	288000	288000	324000	324000	324000	360000
	L	m³/h	207000	288000	320000	352000	352000	276000	276000	322000
	A	m³/h	288000	324000	360000	396000	396000	384000	384000	448000
	E	m³/h	253000	253000	276000	299000	322000	322000	345000	345000
	U	m³/h	352000	352000	384000	416000	448000	448000	480000	480000
	N	m³/h	322000	345000	368000	368000	368000	391000	n.d.	n.d.
Sound data										
Sound power	°	dB(A)	101	102	102	102	102	102	102	103
	L	dB(A)	93	93	94	94	94	94	94	94
	A	dB(A)	101	102	102	102	102	102	102	102
	E	dB(A)	94	94	94	94	94	94	94	94
	U	dB(A)	101	102	102	102	102	102	102	102
	N	dB(A)	94	95	95	95	95	95	n.d.	n.d.

n.d. versions not available



## Technical Data

Mod NSM			7203	8403	9603
Cooling capacity	°	kW	1667	1739	1856
	L	kW	1645	1754	1941
	A	kW	1748	1904	2100
	E	kW	1749	n.d.	n.d.
	U	kW	1768	n.d.	n.d.
	N	kW	n.d.	n.d.	n.d.
Total input power	°	kW	575	659	731
	L	kW	587	660	714
	A	kW	560	614	673
	E	kW	563	n.d.	n.d.
	U	kW	541	n.d.	n.d.
	N	kW	n.d.	n.d.	n.d.
EER	°	W/W	2,90	2,64	2,54
	L	W/W	2,80	2,66	2,72
	A	W/W	3,12	3,10	3,12
	E	W/W	3,11	n.d.	n.d.
	U	W/W	3,27	n.d.	n.d.
	N	W/W	n.d.	n.d.	n.d.
ESEER	°	W/W	3,85	3,80	3,80
	L	W/W	3,90	3,87	3,89
	A	W/W	3,99	3,96	3,99
	E	W/W	4,05	n.d.	n.d.
	U	W/W	4,14	n.d.	n.d.
	N	W/W	n.d.	n.d.	n.d.
ESEER HP floating	Alls	ESEER improvements of up to 5%			
Water flow rate	°	l/h	287330	299790	320050
	L	l/h	283850	302520	334990
	A	l/h	301740	328430	362460
	E	l/h	301590	n.d.	n.d.
	U	l/h	305050	n.d.	n.d.
	N	l/h	n.d.	n.d.	n.d.
Total pressure drop	°	kPa	33	36	40
	L	kPa	47	34	45
	A	kPa	53	41	52
	E	kPa	45	n.d.	n.d.
	U	kPa	46	n.d.	n.d.
	N	kPa	n.d.	n.d.	n.d.

### Cooling (14511:2013)

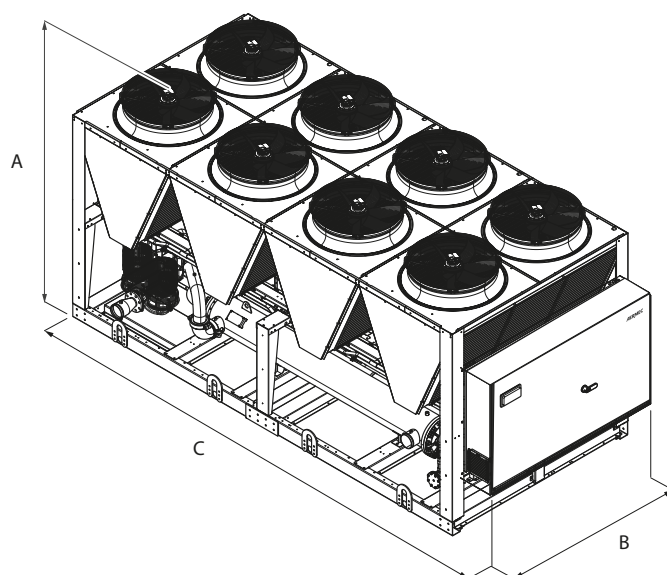
Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

GENERAL DATA			7203	8403	9603	
Electrical data						
Total input current	(1)	°	A	966	1103	1230
	(1)	L	A	960	1067	1163
	(1)	A	A	936	1017	1132
	(1)	E	A	898	n.d.	n.d.
	(1)	U	A	896	n.d.	n.d.
	(1)	N	A	n.d.	n.d.	n.d.
Compressors		type	two screw			
Compressors		n°	3	3	3	
Circuits		n°	3	3	3	
Refrigerant		type	R134a			
System side exchanger		type	shell and tube			
Exchanger	°	n°	1	1	1	
	L	n°	2	2	2	
	A	n°	2	2	2	
	E	n°	2	n.d.	n.d.	
	U	n°	2	n.d.	n.d.	
	N	n°	n.d.	n.d.	n.d.	
Standard fans		type	axial			
fans	°	n°	22	22	22	
	L	n°	28	30	34	
	A	n°	28	30	34	
	E	n°	32	n.d.	n.d.	
	U	n°	32	n.d.	n.d.	
	N	n°	n.d.	n.d.	n.d.	
Air flow rate cooling mode	°	m³/h	396000	396000	396000	
	L	m³/h	322000	345000	490000	
	A	m³/h	448000	480000	588000	
	E	m³/h	368000	n.d.	n.d.	
	U	m³/h	512000	n.d.	n.d.	
	N	m³/h	n.d.	n.d.	n.d.	
Sound data						
Sound power	°	dB(A)	103	103	103	
	L	dB(A)	94	94	95	
	A	dB(A)	102	103	104	
	E	dB(A)	95	n.d.	n.d.	
	U	dB(A)	102	n.d.	n.d.	
	N	dB(A)	n.d.	n.d.	n.d.	

(1) The electrical data of the versions without hydronic module integrated

### Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification



Mod. NSM	Vers	1402	1602	1802	2002	2202	2352	2502	2652
Height (mm)	A	all	2450	2450	2450	2450	2450	2450	2450
Width (mm)	B	all	2200	2200	2200	2200	2200	2200	2200
Depth (mm)	C	°	3970	3970	3970	5160	5160	5160	5160
		L	5160	5160	5160	5160	6350	6350	7140
		A	5160	5160	5160	5160	6350	6350	7140
		E	5160	5160	6350	6350	6350	7140	8330
		U	5160	5160	6350	6350	6350	7140	8330
		N	6350	6350	7140	7140	7140	8330	9520

Mod. NSM	Vers	2802	3002	3202	3402	3602	3902	4202	4502
Height (mm)	A	all	2450	2450	2450	2450	2450	2450	2450
Width (mm)	B	all	2200	2200	2200	2200	2200	2200	2200
Depth (mm)	C	°	5160	6350	6350	6350	6350	7140	8330
		L	7140	7140	7140	8330	8330	9520	10710
		A	7140	7140	7140	8330	8330	9520	10710
		E	8330	8330	8330	9520	9520	10710	11900
		U	8330	8330	8330	9520	9520	10710	11900
		N	9520	9520	9520	10710	11900	13090	15470

Mod. NSM	Vers	4802	5202	5602	6002	6402	6503	6703	6903
Height (mm)	A	all	2450	2450	2450	2450	2450	2450	2450
Width (mm)	B	all	2200	2200	2200	2200	2200	2200	2200
Depth (mm)	C	°	8330	9520	9520	9520	10710	11110	11900
		L	10710	10710	11900	13090	13090	14280	16660
		A	10710	10710	11900	13090	13090	14280	16660
		E	13090	13090	14280	15470	16660	16660	17850
		U	13090	13090	14280	15470	16660	16660	17850
		N	16660	17850	19040	19040	19040	20230	n.d.

Mod. NSM	Vers	7203	8403	9603
Height (mm)	A	all	2450	2450
Width (mm)	B	all	2200	2200
Depth (mm)	C	°	13090	13090
		L	16660	17850
		A	16660	17850
		E	19040	n.d.
		U	19040	n.d.
		N	n.d.	n.d.

For transport reasons, the sizes of the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

# NSMI

1251/5202  
cooling only

HFC  
Refrigerant  
**R134a**



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Air/Water inverter chillers for outdoor installation**  
**Screw compressors, shell and tube heat exchangers and axial fans**  
**Cooling capacity 285 - 1201 kW**



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **LOW ELECTRICAL CONSUMPTION**

## Features

The NSMI are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities. These are outdoor units with screw inverter compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint. Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

### Versions

**NSMI\_A** High efficiency  
**NSMI\_E** High efficiency low noise

- Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Silenced versions feature a special compressor jacket which ensures a further noise reduction of approximately 4dB
- Microprocessor adjustment
- **Complete with latest generation Touch screen** allowing real time graphics visualization showing water and external air temperatures, pressures and requested load. Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

## Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6**: Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18**: Web server to monitor and remote control max. 18 units in RS485 network;

- AERWEB300-6G**: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- AERWEB300-18G**: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **MULTICHILLER**: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX**: Spring anti-vibration mounts.

### Accessories factory fitted only

- **KRS**: Evaporator trace heating
- **KRSDES**: Electrical resistor for desuperheater
- **GP**: Anti-intrusion grids.

## Accessories compatibility

Mod. NSMI	vers.	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
AER485P1		•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>Accessories factory fitted only</b>														
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•
KRS_DES	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility

(x2) Indicates the amount to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
1,2,3,4	<b>NSMI</b>
5,6,7,8	<b>Size</b> 1251-1601-1801 ( <b>single circuit</b> ) 2352-2652-2802-3202-3402-3802-4102-4402-4802-5202 ( <b>dual circuit</b> )
9	<b>Model</b> ° Only cooling
10	<b>Heat recovery</b> ° Without heat recovery
	<b>D</b> With desuperheater
11	<b>Version</b> <b>A</b> High efficiency <b>E</b> Low noise high efficiency
12	<b>Coils</b> ° Aluminium microchannel <b>O</b> Painted aluminium microchannel <b>R</b> Copper - Copper <b>S</b> Copper - Thinned <b>V</b> Copper Painted aluminium
13	<b>Fans</b> ° Standard <b>J</b> Inverter
14	<b>Power supply</b> ° 400V/3/50Hz fuses
15,16	<b>Integrated hydronic kit</b> <b>00</b> Without hydronic kit <b>PA</b> Pumping unit (pump A) <b>PB</b> Pumping unit (pump B) <b>PC</b> Pumping unit (pump C) <b>PD</b> Pumping unit (pump D) <b>PE</b> Pumping unit (pump E) <b>PF</b> Pumping unit (pump F) <b>PG</b> Pumping unit (pump G) <b>PH</b> Pumping unit (pump H) <b>PI</b> Pumping unit (pump I) <b>PJ</b> Pumping unit (pump J) <b>DA</b> Pumping unit (pump A and stand-by pump) <b>DB</b> Pumping unit (pump B and stand-by pump) <b>DC</b> Pumping unit (pump C and stand-by pump) <b>DD</b> Pumping unit (pump D and stand-by pump) <b>DE</b> Pumping unit (pump E and stand-by pump) <b>DF</b> Pumping unit (pump F and stand-by pump) <b>DG</b> Pumping unit (pump G and stand-by pump) <b>DH</b> Pumping unit (pump H and stand-by pump) <b>DI</b> Pumping unit (pump I and stand-by pump) <b>DJ</b> Pumping unit (pump J and stand-by pump)

## Technical Data

NSMI - A/E		1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
V/ph/Hz		400V/3/50Hz												
Cooling capacity	(1) kW	285	382	463	519	605	658	724	801	841	946	1006	1108	1201
Total input power	(1) kW	91	120	149	167	194	212	233	257	270	305	325	356	397
EER	(1)	3,12	3,17	3,10	3,10	3,11	3,10	3,11	3,11	3,12	3,10	3,10	3,11	3,02
ESEER	(1)	4,75	4,73	4,71	4,70	4,73	4,71	4,73	4,73	4,74	4,72	4,71	4,71	4,70
Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A
Water flow rate	(1) l/h	49130	65700	79773	89247	104092	113376	124682	137945	144852	162983	173442	191110	207270
Pressure drop	(1) kPa	45	15	21	18	25	28	33	27	30	39	45	38	44

Date (14511:2013)

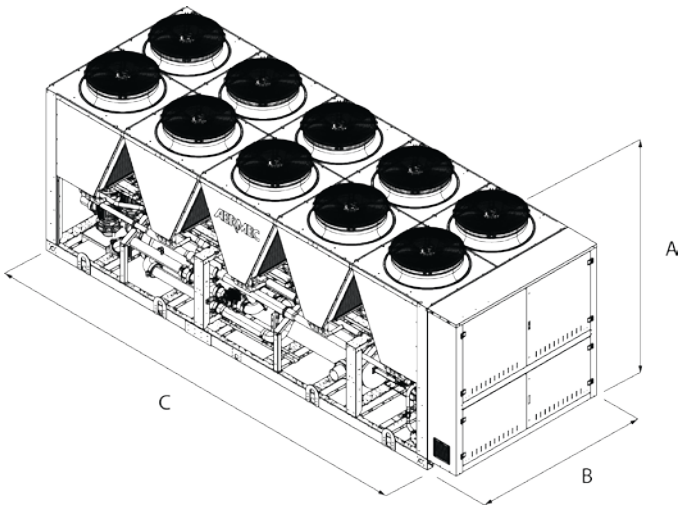
(1) Water evaporator 12°C/7°C, External air 35°C

		1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
<b>Electrical data</b>														
Total input current (cooling)	FA/FE (3)	155	200	245	293	337	360	393	431	443	517	547	619	665
Maximum current (FLA)	(3)	251	291	378	442	473	519	519	567	654	708	753	874	917
Starting current (LRA)	(3)	51	51	58	572	605	651	651	775	862	989	1059	1180	1335
<b>Compressors - Screw</b>														
Compressors / Circuit	n°	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Type	R134a												
<b>Heat exchanger system side</b>														
Heat exchanger	Type/n°	Shell&tube/1												
<b>Axial fans</b>														
Fan	Type/n°	8	8	10	10	12	14	14	14	16	18	20	22	22
Air flow rate (cooling)	m³/h	128000	128000	160000	160000	192000	224000	224000	224000	256000	288000	320000	396000	396000
<b>Sound data (cooling)</b>														
Sound power level	A	dB(A)	97	99	99	99	100	100	100	100	100	101	103	103
	E	dB(A)	93	96	96	95	95	96	96	97	97	98	98	100

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



NSMI A/E				1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
Height	mm	A	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	All	4760	4760	5950	6400	7140	8330	8330	8330	9520	10710	11900	13090	13090

## NSH 1251/2002 Heat pump

HFC  
Refrigerant  
**R134a**



AERMEC participates in the EUROVENT programme for LCP. Check ongoing validity of certificate online: [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Reversible heat pumps**  
**Air/Water outdoor installation**  
**Axial fans and twin-rotor screw compressor**  
**Cooling capacity 235 - 730kW**  
**Heating capacity 276 - 789kW**



- **STANDARD VERSION**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **1/2 REFRIGERANT CIRCUIT**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**
- **ELECTRONIC EXPANSION VALVE**

### Characteristics

- Reversible heat pumps

#### Version

- NS\_H** Standard version
- NS\_HL** Standard low noise version
- NS\_HA** High efficiency version
- NS\_HE** High efficiency low noise version

#### Operational limits (1)

- max. external air temperature 48°C in cooling mode
- Maximum leaving water temperature 55°C in heating mode
- 1/2 refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 25 to

100%.

- Electronic expansion valve as a standard
- Economiser circuit with plate heat exchanger for improved performance, particularly at high compression ratios, as experienced in heating mode at low ambients
- Generously sized refrigerant circuit for minimum pressure drop
- Shell and tube evaporator optimised for refrigerant R134a.
- Pressure switch as standard supply
- Option integrated hydronic module, it consists of 1 or 2 pumps and 2 expansion tanks (25l.)
- Axial fans for extremely quiet operation
- Modulating capacity control microprocessor system

- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint
- Options for partial or total heat recovery
- The low noise version "L/E" is equipped:
  - Compressor acoustical enclosure
  - Fan speed control (DCPX)
  - Hot gas discharge muffler.

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **DCPX:** Low ambient device for cooling operation below 20°C down to -10°C.
- **AVX:** Spring anti-vibration
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.
- **AK: ACOUSTIC KIT (only for Versions L and E)**  
This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

#### Accessories factory fitted only

- **KRS:** Evaporator trace heating.
- **KRSDES/KRSREC:** Evaporator and heat recovery exchangers trace heating.
- **RIFNS:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.



## Compatibility of accessories

Mod. NS	vers.	1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1	All	•(x1)	•(x1)	•(x1)	•(x1)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300	All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	All	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DCPX	(1) All	69	69	69	69	68	68	68	73	73	73	73	73	73	73	73	73	73

### Spring antivibration for unit without Hydronik kit "00"

AVX	HA/HE	536	536	536	540	537	538	541	543	543	545	549	551	551	554	556	557	559
-----	-------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

### Spring antivibration for unit with Hydronik kit

AVX	PA	HA/HE	536	536	536	540	537	538	541	543	543	545	550	551	551	553	553	557	559
AVX	PC	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PE	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PG	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559
AVX	PJ	HA/HE	536	536	536	540	538	538	541	543	543	545	550	551	551	553	555	557	559

### Accessories factory fitted only

KRS		KRS11	KRS11	KRS11	KRS11	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS14	KRS14	KRS14	KRS14
KRS_DES	(2)	KRS11DES	KRS11DES	KRS11DES	KRS11DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS19DES	KRS14DES	KRS14DES	KRS14DES	KRS14DES
RIFNSH		1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3602
GP300M		•	•	•															
GP400M					•														
GP300B						•	•												
GP400B								•											
GP500B									•	•	•	•	•	•					
GP300M+300M																•	•		
GP300M+400M																		•	
GP400M+400M																			•
AK	(3)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) IDCPIX Accessory supplied as standard on Versions HE, and D

(2) Accessory comes standard with the electrical heater for evaporator and desuperheater

(3) Accessory is only available for the low noise version "L/E"

(x2) the number in brackets indicates the quantity to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code	13	Power supply
1,2	NS		° 400V/3/50Hz with fuses
3,4,5,6	Size	2	230V/3/50Hz with fuses (4)
	1251-1401-1601-1801	4	230V/3/50Hz with circuit breakers (4)
	1402-1602-1802-2002-2202-2352-2502-2652-2802	5	500V/3/50Hz with fuses (5)
	3002-3202-3402-3602	8	400V/3/50Hz with circuit breakers
7	Expansion valve:	9	500V/3/50Hz with circuit breakers (5)
	X Electronic expansion valve (leaving water temperature down to 4°C)	14-15	Hydronic kit
	contact head office for lower temperatures	00	Without hydronic kit
8	Model	PA	Hydronic pump (Pump A)
	H Heat pumps	PC	Hydronic pump (Pump C)
9	Heat recovery	PE	Hydronic pump (Pump E)
	° Without recovery	PG	Hydronic pump (Pump G)
	D With Desuperheater	PJ	Hydronic pump (Pump J)
10	Version		
	A High efficiency		
	E High efficiency in low noise operation		
11	Coil		
	° In aluminium		
	R In copper		
	S In tinned copper		
	V In painted aluminium-copper (epoxy paint)		
12	Fans		
	° Standard		
	J Inverter		

The desuperheater can be used exclusively in the col operation

(4) 230V/3/50Hz is not available for size 1251÷1801/2352÷3602

(5) 500V/3/50Hz is not available for size 1801-3402-3602

## Technical Data

NS - HA			1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
		V/Ph/Hz	400V/3/50Hz																
12°C / 7°C	Cooling capacity	(1) kW	262,0	281,0	309,0	365,0	257,0	315,0	365,0	384,0	413,0	454,0	498,0	523,0	546,0	590,0	619,0	674,0	730,0
	Total input power	(1) kW	87,0	95,0	108,0	128,0	95,0	108,0	125,0	132,0	139,0	158,0	173,0	187,0	196,0	203,0	215,0	236,0	256,0
	EER	(1)	3,01	2,96	2,86	2,85	2,71	2,92	2,92	2,91	2,97	2,87	2,88	2,80	2,79	2,91	2,88	2,86	2,85
	ESEER	(1)	3,51	3,44	3,31	3,30	3,23	3,48	3,49	3,48	3,56	3,41	3,44	3,36	3,33	3,37	3,31	3,31	3,30
	Cooling Energy Class Eurovent	(1)	B	B	C	C	C	B	B	B	B	C	C	C	C	B	C	C	C
	Water flow rate	(1) l/h	45236	48504	53320	62952	44376	54352	62952	66220	71380	78260	86000	90300	94256	101824	106640	116272	125904
40°C / 45°C	Pressure drop	(1) kPa	38	41	27	43	36	50	43	47	53	37	38	40	43	34	27	35	43
	Heating capacity	(2) kW	282,0	298,0	333,0	394,0	282,0	344,0	397,0	413,0	452,0	504,0	543,0	565,0	587,0	631,0	666,0	727,0	789,0
	Total input power	(2) kW	88,1	94,2	103,9	126,6	93,1	106,6	123,6	133,8	141,0	158,0	171,0	177,0	185,0	198,0	208,0	230,0	253,0
	COP	(2)	3,20	3,16	3,20	3,11	3,03	3,23	3,21	3,09	3,21	3,19	3,18	3,19	3,17	3,19	3,20	3,16	3,12
	Heating Energy Class Eurovent	(2)	A	B	A	B	B	A	A	B	A	B	B	B	B	B	A	B	B
	Water flow rate	(2) l/h	48332	51084	57104	67596	48332	58824	67940	70864	77400	86344	93052	96836	100620	108188	114208	124700	135192
	Pressure drop	(2) kPa	43	45	30	49	43	59	50	54	62	45	43	45	49	38	30	40	50
	Performance under average climatic conditions (Average)																		
	Pdesignh	(3)	185	195	218	259	185	225	260	271	297	330	356	370	385	/	/	/	/
	SCOP	(3)	3,33	3,28	3,33	3,23	3,23	3,33	3,33	3,20	3,30	3,30	3,30	3,33	3,30	/	/	/	/
	ns	(3)	130	128	130	126	126	130	130	125	129	129	129	130	129	/	/	/	/

NS - HE			1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
		V/Ph/Hz	400V/3/50Hz																	
12°C / 7°C	Cooling capacity	(1)	kW	250,0	266,0	291,0	343,0	242,0	301,0	349,0	366,0	393,0	435,0	486,0	505,0	516,0	559,0	585,0	635,0	686,0
	Total input power	(1)	kW	92,0	102,0	116,0	136,0	101,0	116,0	132,0	140,0	146,0	169,0	192,0	202,0	211,0	217,0	231,0	252,0	272,0
	EER	(1)		2,72	2,61	2,51	2,52	2,40	2,59	2,64	2,61	2,69	2,57	2,53	2,50	2,45	2,58	2,53	2,52	2,52
	ESEER	(1)		3,36	3,21	3,09	3,10	3,05	3,29	3,33	3,30	3,40	3,25	3,18	3,15	3,11	3,15	3,09	3,08	3,09
	Cooling Energy Class Eurovent	(1)		C	D	D	D	E	D	D	D	D	D	D	D	E	D	D	D	D
	Water flow rate	(1)	l/h	43172	45924	50224	59168	41796	51944	60200	63124	67940	74992	83936	87204	89096	96320	100792	109564	118336
40°C / 45°C	Pressure drop	(1)	kPa	32	37	24	38	33	46	39	43	48	34	35	37	39	30	24	31	38
	Heating capacity	(2)	kW	282,0	298,0	333,0	394,0	282,0	344,0	397,0	413,0	452,0	504,0	543,0	565,0	587,0	631,0	666,0	727,0	789,0
	Total input power	(2)	kW	88,1	94,2	103,9	126,6	93,1	106,6	123,6	133,8	141,0	158,0	171,0	177,0	185,0	198,0	208,0	230,0	253,0
	COP	(2)		3,20	3,16	3,20	3,11	3,03	3,23	3,21	3,09	3,21	3,19	3,18	3,19	3,17	3,19	3,20	3,16	3,12
	Heating Energy Class Eurovent	(2)		A	B	A	B	B	A	A	B	A	B	B	B	B	B	A	B	B
	Water flow rate	(2)	l/h	48332	51084	57104	67596	48332	58824	67940	70864	77400	86344	93052	96836	100620	108188	114208	124700	135192
		(2)	kPa	43	45	30	49	43	59	50	54	62	45	43	45	49	38	30	40	50
Performance under average climatic conditions (Average)																				
		(3)		185	195	218	259	185	225	260	271	297	330	356	370	385	/	/	/	/
		(3)		3,33	3,28	3,33	3,23	3,23	3,33	3,33	3,20	3,30	3,30	3,30	3,33	3,30	/	/	/	/
		(3)		130	128	130	126	126	130	130	125	129	129	129	130	129	/	/	/	/

			1251	1401	1601	1801	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
Electrical data																				
Total input current (cooling)	HA	(4)	A	149	164	185	215	168	186	216	227	233	268	295	318	335	349	370	400	430
Total input current (heating)		(4)	A	150	163	180	212	165	182	213	229	236	267	292	303	318	342	359	391	423
Total input current (cooling)	HE	(4)	A	161	178	202	234	181	202	233	246	254	293	333	349	365	380	403	436	468
Total input current (heating)		(4)	A	150	163	180	212	165	182	213	229	236	267	292	303	318	342	359	391	423
Maximum current (FLA)		(4)	A	209	242	258	316	276	276	325	352	370	390	410	443	476	500	516	574	631
Starting current (LRA)		(4)	A	327	387	431	472	251	251	305	313	350	365	436	461	521	534	578	612	653
Screw Compressor																				
Compressor / circuit		n°	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Type	R134a																	
Heat exchanger system side (Shell&Tube)																				
Exchanger		n°	1	1	1	1	2	2	2	2	1	1	1	1	1	2	2	2	2	2
hydraulic connections (In/Out)		Ø	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
Axial Fan																				
Fan	HA	n°	6	6	6	8	6	6	8	10	10	10	10	10	10	12	12	14	16	16
Air flow rate (cooling)		m³/h	117600	117600	112200	156000	117600	112200	153200	196000	196000	196000	196000	191500	187000	229800	224400	268200	312000	312000
Fan	HE	n°	6	6	6	8	6	6	8	10	10	10	10	10	10	12	12	14	16	16
Air flow rate (cooling)		m³/h	82320	117600	78540	109200	82320	78540	107240	137200	137200	137200	137200	134050	130900	196140	157080	187740	218400	218400
Sound data (cooling mode)																				
Sound power level	HA	dB(A)	94	94	95	96	94	95	96	97	97	97	97	97	97	97	98	99	99	99
Sound pressure level		dB(A)	62	62	63	64	62	63	64	64	64	64	64	65	65	65	64	65	66	66
Sound power level	HE	dB(A)	89	89	90	91	89	90	91	92	92	92	92	92	92	92	92	93	94	94
Sound pressure level		dB(A)	57	57	58	59	57	58	59	59	59	59	59	60	60	60	59	60	61	61

**Date (14511:2013)**

(1) Water evaporator 12°C/7°C, External air 35°C

(2) Water condenser 40°C/45°C, External air 7°C b.s./6°C b.u.

(3) Efficiencies for low temperature Applications (35°C)

Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 400kW

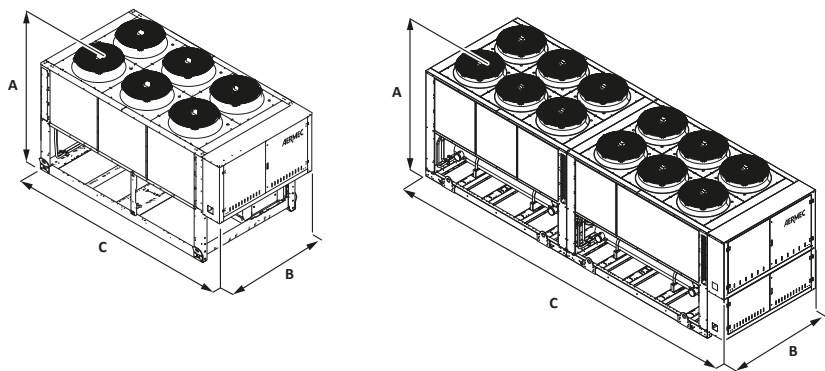
(4) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

Dimensions (mm)



NS - H			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Height	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	B	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Depth	C	mm	3780	3780	3780	4770	3780	3780	4770	5750	5750	5750	5750	5750	5750	7160	7160	8150	9140
Weight	HA/HE	kg	3245	3280	3435	4115	3570	3835	4005	4385	4570	4940	5265	5470	5610	6540	6745	7425	8105

# NSG

1402/9603  
cooling only

**Air/Water chillers for outdoor installation**  
**Screw compressors, shell and tube heat exchangers and axial fans**  
**Cooling capacity 443 - 1578kW**



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **NIGHT MODE**

## Characteristics

Outdoor chillers for the production of chilled water with high-efficiency screw compressors, with cooling capacity adjustment via continuous modulation. Axial fans, microchannel external coils, plant side shell and tube heat exchanger. In the units (with desuperheater or total recovery) there is also the possibility of producing hot water for free. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

**HFO R1234ze** is a mixture featuring **ODP=0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430**, with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

### Versions

<b>NSG_°</b>	Standard
<b>NSG_L</b>	Standard low noise
<b>NSG_A</b>	High efficiency
<b>NSG_E</b>	High efficiency low noise
<b>NSG_U</b>	Very high efficiency
<b>NSG_N</b>	Very high efficiency low noise

**Range of operation:** Work up to 45°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- The full range uses electronic thermostatic valve. The possibility of using this valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the **integral proportional logic**, based on the water output temperature.

- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

**"Night Mode is standard on all low noise versions. For all other versions either the DCPX accessory or "J" inverter fan must be specified to allow Night Mode to operate."**

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - AERWEB300-6G:** Web server to monitor and remote

- control max. 6 units in RS485 network with integrated GPRS modem;
- AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts..

### Accessories factory fitted only

- **KRS:** Evaporator trace heating
- **RIFNSM:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current
- **GP:** Anti-intrusion grids.

## Compatibility of accessories

Mod. NSG	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories factory fitted only																	
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603					
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)	•(x3)					
AERWEB300		•	•	•	•	•	•	•	•	•	•	•					
PRV3		•	•	•	•	•	•	•	•	•	•	•					
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•					
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•					
Accessories factory fitted only																	
KRS	(1)	•	•	•	•	•	•	•	•	•	•	•					
GP	(1)	•	•	•	•	•	•	•	•	•	•	•					

(1) Accessories to be defined for compatibility

(x2) Indicates the amount to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
1,2,3	<b>NSG</b>
4,5,6,7	<b>Sizes</b> 1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202-3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 6503-6703-6903-7203-8403-9603
8	<b>Operational limits</b> <b>X</b> Electronic thermostatic valve (temperature of water produced up to +4 °C)
9	<b>Model</b> ° Cooling Only
10	<b>Heat recovery</b> ° Without heat recovery <b>D</b> With desuperheater
11	<b>Version</b> ° Standard <b>L</b> Low noise Standard <b>A</b> High efficiency <b>E</b> Low noise high efficiency <b>U</b> Very high efficiency <b>N</b> Low noise very high efficiency
12	<b>Coils</b> ° Aluminium microchannel <b>O</b> Painted aluminium microchannel <b>R</b> Copper - Copper <b>S</b> Copper - Thinned
13	<b>Fans</b> ° Standard <b>J</b> Inverter
14	<b>Power supply</b> ° 400V/3/50Hz with fuses <b>8</b> 400V/3/50Hz with magnet circuit breakers <b>2</b> 230V/3/50Hz with fuses <b>(2)</b> <b>4</b> 230V/3/50Hz with magnet circuit breakers <b>(2)</b> <b>5</b> 500V/3/50Hz with fuses <b>(3)</b> <b>9</b> 500V/3/50Hz with magnet circuit breakers <b>(3)</b>
15-16	<b>Integrated hydronic kit</b> <b>00</b> Without hydronic kit <b>PA</b> Pumping unit (pump A) <b>PB</b> Pumping unit (pump B) <b>PC</b> Pumping unit (pump C) <b>PD</b> Pumping unit (pump D) <b>PE</b> Pumping unit (pump E) <b>PF</b> Pumping unit (pump F) <b>PG</b> Pumping unit (pump G) <b>PH</b> Pumping unit (pump H) <b>PI</b> Pumping unit (pump I) <b>PJ</b> Pumping unit (pump J) <b>DA</b> Pumping unit (pump A and stand-by pump) <b>DB</b> Pumping unit (pump B and stand-by pump) <b>DC</b> Pumping unit (pump C and stand-by pump) <b>DD</b> Pumping unit (pump D and stand-by pump) <b>DE</b> Pumping unit (pump E and stand-by pump) <b>DF</b> Pumping unit (pump F and stand-by pump) <b>DG</b> Pumping unit (pump G and stand-by pump) <b>DH</b> Pumping unit (pump H and stand-by pump) <b>DI</b> Pumping unit (pump I and stand-by pump) <b>DJ</b> Pumping unit (pump J and stand-by pump)
	<b>Operation of pumps in parallel</b> <b>TF</b> Double static pressure pump (pump F) <b>TG</b> Double static pressure pump (pump G) <b>TH</b> Double static pressure pump (pump H) <b>TI</b> Double static pressure pump (pump I) <b>TJ</b> Double static pressure pump (pump J)

(2) 230V/3/50Hz available only for sizes from 1402÷2202

(3) 500V/3/50Hz available only for sizes from 1402÷3202

NSG - °			1402	1602	1802	2002	2202	2352	2502
V/ph/Hz			400V/3/50Hz						
12°C / 7°C	Cooling capacity	(1) kW	228	261	298	334	358	389	402
	Total input power	(1) kW	74	86	100	108	120	130	138
	EER	(1)	3,07	3,04	2,96	3,08	2,99	3,00	2,91
	ESEER	(1)	3,94	3,99	3,93	4,05	4,04	3,99	3,98
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	39360	45000	51280	57520	61730	67100	69330
	Pressure drops	(1) kPa	14	18	16	21	24	20	22
NSG - L									
12°C / 7°C	Cooling capacity	(1) kW	228	261	298	335	373	386	415
	Total input power	(1) kW	73	84	98	113	120	128	138
	EER	(1)	3,13	3,11	3,04	2,97	3,11	3,01	3,00
	ESEER	(1)	4,03	4,12	4,03	4,03	4,09	4,07	4,08
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	39210	45060	51430	57680	64310	66580	71470
	Pressure drops	(1) kPa	15	18	17	15	19	20	16
NSG - A									
12°C / 7°C	Cooling capacity	(1) kW	233	267	307	346	383	397	429
	Total input power	(1) kW	74	84	97	110	118	126	135
	EER	(1)	3,16	3,19	3,17	3,15	3,23	3,15	3,18
	ESEER	(1)	4,11	4,16	4,08	4,09	4,14	4,12	4,13
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	40120	46030	52840	59650	65990	68450	73840
	Pressure drops	(1) kPa	15	19	18	16	20	22	17
NSG - E									
12°C / 7°C	Cooling capacity	(1) kW	243	281	317	359	387	413	428
	Total input power	(1) kW	74	86	97	111	122	127	133
	EER	(1)	3,30	3,25	3,28	3,23	3,17	3,26	3,21
	ESEER	(1)	4,20	4,25	4,27	4,21	4,17	4,25	4,21
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	41920	48360	54640	61790	66710	71120	73760
	Pressure drops	(1) kPa	12	11	14	9	11	12	13
NSG - U									
12°C / 7°C	Cooling capacity	(1) kW	249	288	325	369	399	424	440
	Total input power	(1) kW	74	86	97	110	120	126	132
	EER	(1)	3,36	3,36	3,35	3,35	3,33	3,36	3,33
	ESEER	(1)	4,25	4,30	4,32	4,26	4,22	4,30	4,26
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	42910	49680	55930	63520	68770	72950	75740
	Pressure drops	(1) kPa	13	11	14	10	11	13	14
NSG - N									
12°C / 7°C	Cooling capacity	(1) kW	245	283	318	364	394	417	433
	Total input power	(1) kW	73	84	95	108	119	125	131
	EER	(1)	3,33	3,36	3,34	3,38	3,32	3,35	3,31
	ESEER	(1)	4,27	4,29	4,38	4,25	4,17	4,23	4,20
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	42200	48820	54780	62730	67870	71820	74530
	Pressure drops	(1) kPa	13	11	15	9	11	13	13

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

			1402	1602	1802	2002	2202	2352	2502
Electrical data									
Total input currente (cooling)	°	(2) A	138	156	174	192	214	233	248
	L	(2) A	131	148	165	192	208	224	242
	A	(2) A	139	155	170	195	214	229	246
	E	(2) A	133	152	163	189	211	222	237
	U	(2) A	141	158	172	196	217	231	246
	N	(2) A	132	149	162	185	207	219	234
Compressors two screw									
Compressors / Circuit		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Typo	HFOR1234ze						
System side exchanger - Shell and tube									
Exchanger	°	n°	1	1	1	1	1	1	1
	L	n°	1	1	1	1	1	1	1
	A	n°	1	1	1	1	1	1	1
	E	n°	1	1	1	1	1	1	1
	U	n°	1	1	1	1	1	1	1
	N	n°	1	1	1	1	1	1	1
hydraulic connections (In/Out)		Ø	Please refer to technical documentation						
Ventilatori assiali standard									
Fan	°	n°	6	6	6	8	8	8	8
	L	n°	8	8	8	8	10	10	10
	A	n°	8	8	8	8	10	10	10
	E	n°	8	8	10	10	10	12	12
	U	n°	8	8	10	10	10	12	12
	N	n°	10	10	12	12	12	14	14
Sound data (cooling)									
Sound power level	°	dB(A)	97	97	97	98	98	98	98
	L	dB(A)	89	89	89	89	90	91	91
	A	dB(A)	97	97	98	98	98	98	98
	E	dB(A)	89	89	90	90	90	91	91
	U	dB(A)	97	97	98	98	98	99	99
	N	dB(A)	90	90	91	91	91	91	91

(2) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.



## Technical Data

NSG - °			2652	2802	3002	3202	3402	3602	3902
			V/ph/Hz						
			400V/3/50Hz						
12°C / 7°C	Cooling capacity	(1) kW	443	462	506	531	566	623	675
	Total input power	(1) kW	152	163	167	176	194	215	228
	EER	(1)	2,92	2,84	3,03	3,02	2,92	2,90	2,96
	ESEER	(1)	3,93	3,92	3,98	3,99	3,98	3,93	4,00
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	76370	79630	87140	91490	97510	107320	116360
	Pressure drops	(1) kPa	18	19	17	19	21	24	29
NSG - L									
12°C / 7°C	Cooling capacity	(1) kW	446	476	497	546	601	645	706
	Total input power	(1) kW	144	156	165	179	193	213	231
	EER	(1)	3,09	3,06	3,01	3,05	3,11	3,03	3,05
	ESEER	(1)	4,08	4,10	4,05	4,05	4,11	4,08	4,08
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	76820	82060	85710	94100	103610	111050	121680
	Pressure drops	(1) kPa	19	16	17	19	15	18	22
NSG - A									
12°C / 7°C	Cooling capacity	(1) kW	458	491	511	560	619	668	730
	Total input power	(1) kW	142	153	161	172	188	206	225
	EER	(1)	3,22	3,22	3,18	3,26	3,30	3,24	3,25
	ESEER	(1)	4,13	4,16	4,11	4,11	4,16	4,14	4,13
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	78940	84630	88070	96570	106680	115150	125820
	Pressure drops	(1) kPa	20	16	18	20	16	19	24
NSG - E									
12°C / 7°C	Cooling capacity	(1) kW	471	494	514	549	608	654	713
	Total input power	(1) kW	144	153	160	172	189	205	222
	EER	(1)	3,28	3,22	3,21	3,19	3,22	3,19	3,21
	ESEER	(1)	4,25	4,21	4,21	4,19	4,21	4,20	4,21
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	81220	85060	88510	94660	104650	112670	122950
	Pressure drops	(1) kPa	15	16	18	19	16	18	23
NSG - U									
12°C / 7°C	Cooling capacity	(1) kW	483	507	525	564	622	674	734
	Total input power	(1) kW	144	152	158	168	186	201	219
	EER	(1)	3,36	3,33	3,34	3,36	3,35	3,35	3,36
	ESEER	(1)	4,30	4,26	4,26	4,24	4,26	4,25	4,26
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	83210	87280	90540	97100	107230	116140	126520
	Pressure drops	(1) kPa	16	17	18	20	17	20	24
NSG - N									
12°C / 7°C	Cooling capacity	(1) kW	475	498	517	552	612	669	726
	Total input power	(1) kW	141	149	157	166	183	200	216
	EER	(1)	3,36	3,33	3,30	3,33	3,35	3,34	3,36
	ESEER	(1)	4,23	4,17	4,17	4,16	4,20	4,19	4,19
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	81800	85740	89040	95110	105500	115230	125190
	Pressure drops	(1) kPa	15	17	18	20	16	20	24

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

			2652	2802	3002	3202	3402	3602	3902
Electrical data									
Total input currente (cooling)	°	(2) A	271	289	297	309	332	359	390
	L	(2) A	252	270	284	303	318	342	375
	A	(2) A	260	276	287	303	322	344	380
	E	(2) A	251	267	279	293	310	334	368
	U	(2) A	263	277	287	298	319	342	377
	N	(2) A	249	264	274	287	306	324	359
Compressors two screw									
Compressors / Circuit		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Tipo	HFOR1234ze						
System side exchanger - Shell and tube									
Exchanger	°	n°	1	1	1	1	1	1	1
	L	n°	1	1	1	1	1	1	1
	A	n°	1	1	1	1	1	1	1
	E	n°	1	1	1	1	1	1	1
	U	n°	1	1	1	1	1	1	1
	N	n°	1	1	1	1	1	1	1
hydraulic connections (In/Out)		Ø	Please refer to technical documentation						
Ventilatori assiali standard									
Fan	°	n°	8	8	10	10	10	10	12
	L	n°	12	12	12	12	14	14	16
	A	n°	12	12	12	12	14	14	16
	E	n°	14	14	14	14	16	16	18
	U	n°	14	14	14	14	16	16	18
	N	n°	16	16	16	16	18	20	22
Sound data (cooling)									
Sound power level	°	dB(A)	98	98	99	100	100	100	101
	L	dB(A)	91	91	91	91	91	91	92
	A	dB(A)	99	99	99	99	99	99	100
	E	dB(A)	92	92	92	92	93	93	93
	U	dB(A)	99	99	99	99	100	100	100
	N	dB(A)	92	92	92	92	93	93	93

(2) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

NSG - °			4202	4502	4802	5202	5602	6002	6402
V/ph/Hz			400V/3/50Hz						
12°C / 7°C	Cooling capacity	(1) kW	738	791	834	873	895	940	987
	Total input power	(1) kW	252	263	282	289	302	321	330
	EER	(1)	2,93	3,01	2,96	3,02	2,96	2,93	2,99
	ESEER	(1)	3,93	4,00	3,98	3,98	3,98	3,93	3,99
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
12°C / 7°C	Water flow rate	(1) l/h	127290	136400	143740	150570	154380	162220	170230
	Pressure drops	(1) kPa	33	38	28	31	33	38	42
NSG - L									
12°C / 7°C	Cooling capacity	(1) kW	742	805	840	892	932	981	1021
	Total input power	(1) kW	252	267	284	298	306	315	334
	EER	(1)	2,94	3,02	2,96	3,00	3,05	3,11	3,05
	ESEER	(1)	4,02	4,05	4,04	4,03	4,05	4,06	4,02
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
12°C / 7°C	Water flow rate	(1) l/h	127960	138770	144850	153740	160700	169130	176070
	Pressure drops	(1) kPa	24	31	33	24	26	31	33
NSG - A									
12°C / 7°C	Cooling capacity	(1) kW	769	832	870	922	960	1009	1052
	Total input power	(1) kW	244	259	274	291	302	313	330
	EER	(1)	3,16	3,22	3,18	3,16	3,18	3,23	3,18
	ESEER	(1)	4,08	4,10	4,10	4,09	4,11	4,11	4,08
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
12°C / 7°C	Water flow rate	(1) l/h	132590	143490	150130	158890	165540	173990	181360
	Pressure drops	(1) kPa	26	33	36	26	28	33	35
NSG - E									
12°C / 7°C	Cooling capacity	(1) kW	763	812	876	899	944	999	1028
	Total input power	(1) kW	236	256	273	284	293	310	319
	EER	(1)	3,23	3,18	3,20	3,17	3,22	3,22	3,23
	ESEER	(1)	4,21	4,17	4,22	4,13	4,14	4,14	4,22
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
12°C / 7°C	Water flow rate	(1) l/h	131540	139970	150920	155010	162580	172130	177050
	Pressure drops	(1) kPa	26	32	24	25	16	16	19
NSG - U									
12°C / 7°C	Cooling capacity	(1) kW	783	836	901	926	970	1026	1054
	Total input power	(1) kW	232	250	268	278	288	306	316
	EER	(1)	3,37	3,34	3,36	3,33	3,36	3,35	3,34
	ESEER	(1)	4,26	4,22	4,27	4,18	4,18	4,19	4,27
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
12°C / 7°C	Water flow rate	(1) l/h	135020	144090	155200	159640	167100	176680	181500
	Pressure drops	(1) kPa	28	34	25	27	17	17	20
NSG - N									
12°C / 7°C	Cooling capacity	(1) kW	766	833	879	924	960	1002	1035
	Total input power	(1) kW	230	248	261	275	287	296	312
	EER	(1)	3,33	3,36	3,36	3,36	3,35	3,38	3,32
	ESEER	(1)	4,15	4,17	4,18	4,21	4,14	4,16	4,13
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A
12°C / 7°C	Water flow rate	(1) l/h	131990	143570	151590	159270	165390	172630	178330
	Pressure drops	(1) kPa	27	23	29	29	17	17	20

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

			4202	4502	4802	5202	5602	6002	6402	
Electrical data										
Total input currente (cooling)	°	(2)	A	434	454	482	500	524	558	581
	L	(2)	A	416	437	465	490	507	533	563
	A	(2)	A	417	440	466	502	524	554	583
	E	(2)	A	399	428	450	475	495	519	544
	U	(2)	A	411	437	461	486	509	536	564
	N	(2)	A	395	413	435	458	480	509	537
Compressors two screw										
Compressors / Circuit			n°	2/2	2/2	2/2	2/2	2/2	2/2	
Refrigerant			Tipo HFOR1234ze							
System side exchanger - Shell and tube										
Exchanger	°	n°	1	1	1	1	1	1	1	
	L	n°	1	1	1	1	1	1	1	
	A	n°	1	1	1	1	1	1	1	
	E	n°	1	1	1	1	2	2	2	
	U	n°	1	1	1	1	2	2	2	
	N	n°	1	2	2	2	2	2	2	
hydraulic connections (In/Out)			Ø Please refer to technical documentation							
Ventilatori assiali standard										
Fan	°	n°	12	14	14	16	16	16	18	
	L	n°	16	18	18	18	20	22	22	
	A	n°	16	18	18	18	20	22	22	
	E	n°	20	20	22	22	24	26	28	
	U	n°	20	20	22	22	24	26	28	
	N	n°	22	26	28	30	32	32	32	
Sound data (cooling)										
Sound power level	°	dB(A)	101	101	101	102	102	102	102	
	L	dB(A)	93	93	93	93	94	94	94	
	A	dB(A)	100	100	101	102	102	102	102	
	E	dB(A)	94	94	94	94	94	94	94	
	U	dB(A)	101	101	101	102	102	102	102	
	N	dB(A)	93	94	94	95	95	95	95	

(2) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

## Technical Data

NSG - °			6503	6703	6903	7203	8403	9603
12°C / 7°C		V/ph/Hz				400V/3/50Hz		
	Cooling capacity	(1) kW	1058	1093	1214	1267	1331	1408
	Total input power	(1) kW	355	375	408	419	462	512
	EER	(1)	2,98	2,91	2,98	3,02	2,88	2,75
	ESEER	(1)	3,98	3,93	3,99	3,99	3,93	3,92
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A
	Water flow rate	(1) l/h	182470	188460	209100	218340	229400	242630
	Pressure drops	(1) kPa	29	31	20	22	25	28
NSG - L								
12°C / 7°C	Cooling capacity	(1) kW	1082	1119	1221	1267	1381	1514
	Total input power	(1) kW	358	379	402	421	465	505
	EER	(1)	3,03	2,95	3,04	3,01	2,97	3,00
	ESEER	(1)	4,07	4,02	4,08	4,05	4,02	4,05
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A
	Water flow rate	(1) l/h	186480	192760	210460	218450	238070	261080
	Pressure drops	(1) kPa	22	24	31	33	26	32
NSG - A								
12°C / 7°C	Cooling capacity	(1) kW	1120	1159	1261	1311	1431	1578
	Total input power	(1) kW	347	366	390	408	451	496
	EER	(1)	3,23	3,17	3,23	3,21	3,17	3,18
	ESEER	(1)	4,12	4,08	4,14	4,11	4,08	4,10
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A
	Water flow rate	(1) l/h	193010	199780	217420	226030	246560	272000
	Pressure drops	(1) kPa	24	26	33	36	27	35
NSG - E								
12°C / 7°C	Cooling capacity	(1) kW	1100	1150	1241	1299	n.d.	n.d.
	Total input power	(1) kW	343	358	392	408	n.d.	n.d.
	EER	(1)	3,21	3,21	3,16	3,19	n.d.	n.d.
	ESEER	(1)	4,23	4,25	4,12	4,17	n.d.	n.d.
	Cooling Energy Class Eurovent	(1)	A	A	A	A	n.d.	n.d.
	Water flow rate	(1) l/h	189610	198200	213880	223860	n.d.	n.d.
	Pressure drops	(1) kPa	23	26	32	24	n.d.	n.d.
NSG - U								
12°C / 7°C	Cooling capacity	(1) kW	1132	1181	1278	1337	n.d.	n.d.
	Total input power	(1) kW	337	352	383	399	n.d.	n.d.
	EER	(1)	3,35	3,35	3,34	3,35	n.d.	n.d.
	ESEER	(1)	4,28	4,30	4,17	4,22	n.d.	n.d.
	Cooling Energy Class Eurovent	(1)	A	A	A	A	n.d.	n.d.
	Water flow rate	(1) l/h	195000	203490	220310	230420	n.d.	n.d.
	Pressure drops	(1) kPa	24	28	34	25	n.d.	n.d.
NSG - N								
12°C / 7°C	Cooling capacity	(1) kW	1119	n.d.	n.d.	n.d.	n.d.	n.d.
	Total input power	(1) kW	333	n.d.	n.d.	n.d.	n.d.	n.d.
	EER	(1)	3,36	n.d.	n.d.	n.d.	n.d.	n.d.
	ESEER	(1)	4,18	n.d.	n.d.	n.d.	n.d.	n.d.
	Cooling Energy Class Eurovent	(1)	A	n.d.	n.d.	n.d.	n.d.	n.d.
	Water flow rate	(1) l/h	192800	n.d.	n.d.	n.d.	n.d.	n.d.
	Pressure drops	(1) kPa	24	n.d.	n.d.	n.d.	n.d.	n.d.

Date (14511:2013)

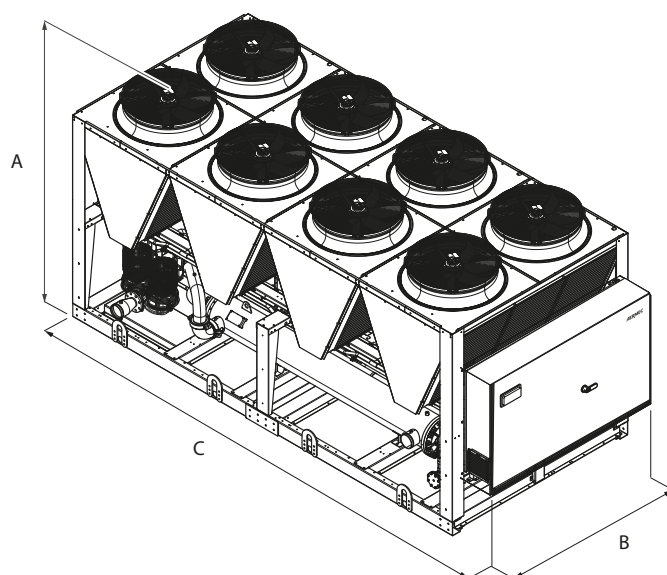
(1) Water evaporator 12°C/7°C, External air 35°C ; n.d. Versions not available

			6503	6703	6903	7203	8403	9603	
Electrical data									
Total input currente (cooling)	°	(2)	A	609	649	701	728	805	900
	L	(2)	A	583	623	670	699	763	848
	A	(2)	A	588	625	676	701	769	866
	E	(2)	A	572	599	656	673	/	/
	U	(2)	A	586	617	668	689	/	/
	N	(2)	A	557	/	/	/	/	/
Compressors two screw									
Compressors / Circuit			n°	3/3	3/3	3/3	3/3	3/3	
Refrigerant			Tipo						HFOR1234ze
System side exchanger - Shell and tube									
Exchanger	°	n°		1	1	1	1	1	1
	L	n°		2	2	2	2	2	2
	A	n°		2	2	2	2	2	2
	E	n°		2	2	2	2	/	/
	U	n°		2	2	2	2	/	/
	N	n°		2	/	/	/	/	/
hydraulic connections (In/Out)			Ø						Please refer to technical documentation
Ventilatori assiali standard									
Fan	°	n°		18	18	20	22	22	22
	L	n°		24	24	28	28	30	34
	A	n°		24	24	28	28	30	34
	E	n°		28	30	30	32	0	0
	U	n°		28	30	30	32	0	0
	N	n°		34	0	0	0	0	0
Sound data (cooling)									
Sound power level	°	dB(A)		102	102	103	103	103	103
	L	dB(A)		94	94	94	94	94	95
	A	dB(A)		102	102	102	102	103	104
	E	dB(A)		94	94	94	95	/	/
	U	dB(A)		102	102	102	102	/	/
	N	dB(A)		95	/	/	/	/	/

(2) Unità in configurazione ed esecuzione standard, senza kit idronico integrato

**Potenza sonora** Aermec determina il valore della potenza sonora sulla base di misure effettuate in accordo con la normativa UNI EN ISO 9614-2, nel rispetto della certificazione Eurovent.

**Pressione sonora (Funzionamento a freddo)** Pressione sonora misurata in campo libero, a 10 m di distanza dalla superficie esterna dell'unità (in accordo con la UNI EN ISO 3744).



Mod. NSG			Vers	1402	1602	1802	2002	2202	2352	2502
Height	(mm)	A	Tutte	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Tutte	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	°	3970	3970	3970	5160	5160	5160	5160
			L	5160	5160	5160	5160	6350	6350	6350
			A	5160	5160	5160	5160	6350	6350	6350
			E	5160	5160	6350	6350	6350	7540	7540
			U	5160	5160	6350	6350	6350	7540	7540
			N	6350	6350	7540	7540	7540	8730	8730
Mod. NSG			Vers	2652	2802	3002	3202	3402	3602	3902
Height	(mm)	A	Tutte	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Tutte	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	°	5160	5160	6350	6350	6350	6350	7540
			L	7540	7540	7540	7540	8730	8730	9920
			A	7540	7540	7540	7540	8730	8730	9920
			E	8730	8730	8730	8730	9920	9920	11110
			U	8730	8730	8730	8730	9920	9920	11110
			N	9920	9920	9920	9920	11110	12300	13490
Mod. NSG			Vers	4202	4502	4802	5202	5602	6002	6402
Height	(mm)	A	Tutte	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	Tutte	2200	2200	2200	2200	2200	2200	2200
Depth	(mm)	C	°	7540	8730	8730	9920	9920	9920	11110
			L	9920	11110	11110	11110	12300	13490	13490
			A	9920	11110	11110	11110	12300	13490	13490
			E	12300	12300	13490	13490	15080	16270	17460
			U	12300	12300	13490	13490	15080	16270	17460
			N	13490	16270	17460	18650	19840	19840	19840
Mod. NSG			Vers	6503	6703	6903	7203	8403	9603	
Height	(mm)	A	Tutte	2450	2450	2450	2450	2450	2450	
Width	(mm)	B	Tutte	2200	2200	2200	2200	2200	2200	
Depth	(mm)	C	°	11110	11110	12300	13490	13490	13490	
			L	15080	15080	17460	17460	18650	21030	
			A	15080	15080	17460	17460	18650	21030	
			E	17460	18650	18650	19840	n.d.	n.d.	
			U	17460	18650	18650	19840	n.d.	n.d.	
			N	21030	n.d.	n.d.	n.d.	n.d.	n.d.	

For transport reasons, the sizes of the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

**HFC**  
 Refrigerant  
**R134a**



#### Aermec

participates in the EUROVENT:  
 LCP programme. The products are listed on  
 the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



## Characteristics

- Available in 13 sizes
- Cooling only version
- New generation two-stage oil-free centrifugal compressor with magnetic levitation bearings
- Refrigerant R134a
- Exceptional high efficiency at part load (up to 30% higher ESEER compared to standard chillers)
- Electronic expansion valve for precise control
- Flooded shell and tube evaporator optimised for refrigerant R134a
- Axial fans for extremely quiet operation
- Compressor features:
  1. Operates without oil as bearings are magnetic levitation type. Vibration free and very quiet
  2. Provided with inverter technology that permits capacity modulation down to 25%
  3. Integrated controller that reduces starting current to 6 A only
- **Standard "O" and Low noise "L" Versions:**
  1. Operating limit up to 42 °C external air temperature
  2. Compressor acoustical enclosure for low noise operation
  3. Fan speed control
- **High efficiency "A" and High efficiency low noise "E" Versions:**
  1. Operating limit up to 42 °C external air temperature
  2. Compressor acoustical enclosure for low noise operation
  3. EC (Electronically Commutated) fan
- Modulating capacity control microprocessor system
- Evaporator trace heating.
- LCD user interface: colour touch-screen with simple and intuitive graphical menu
- Multilingual display panel
- Compact sizes
- Metal control panel with anti-corrosion polyester paint

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **MULTICHILLER TBX:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **AVX:** Spring anti-vibration mounts. For compatibility of the AVX mounts refer to the technical manual.
- **GP:** Protective grille. Condenser coil external protection against accidental or hail damage.

#### Factory fitted.

- **PTW:** Remote control of the chiller operating functions.

TBX	VERS.	1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
AER485P1	Alls	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300	Alls	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_TBX	Alls	•	•	•	•	•	•	•	•	•	•	•	•
GP300M	L E	•											
GP400M	L E		•										
GP500M	L E			•	•	•							
GP 300M+300M	L E						•						
GP 300M+400M	L E							•	•	•			
GP 400M+400M	L E										•		
GP 400M+500M	L E											•	
GP 500M+500M	L E												•
GP 300M	° A	•											
GP 400M	° A		•										
GP 500M	° A			•	•	•							
GP 300M+300M	° A						•						
GP 300M+400M	° A							•	•				
GP 400M+400M	° A									•			
GP 400M+500M	° A										•		
GP 500M+500M	° A											•	•
AVX	°	570	571	571	572	573	574	575	575	576	576	577	577
	L	570	571	571	572	573	574	575	575	575	576	576	577
	A	570	571	571	572	573	574	575	575	576	576	578	578
	E	570	571	571	572	573	574	575	575	575	576	576	577

**Note:**

The number in brackets (x2) indicates the quantity to order.

**AER485P1 - GP** Accessory only factory fitted.

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

**Code:**

TBX

**Size:**

1401, 1801, 2001, 2302, 2502, 2652, 2802, 3202, 3502, 3702,  
3802, 4102, 4303

**Model:**

° - Cooling only

**Version:**

° - Standard  
L - Standard low noise  
A - High efficiency  
E - High efficiency low noise

**Condenser coil:**

° - Aluminium  
R - Copper  
S - Tinned copper  
V - Anti-corrosion coated aluminium

**Fan:**

° - Standard  
I - EC (Electronically Commutated)  
standard on "A" and "E" Versions

**Power supply:**

° - 400V 3~ 50Hz with circuit breakers

**Note:**

– Electronic expansion valve standard

## Technical Data

TBX - °			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
		V/ph/Hz	400V/3/50Hz											
12°C/7°C	Cooling capacity	(1) kW	287	368	407	469	509	545	587	669	736	781	816	845
	Total power input	(1) kW	91,8	117,2	129,3	149	161,4	173	184,9	212,2	233,3	247,4	258,8	268,2
	EER	(1)	3,13	3,14	3,15	3,15	3,16	3,15	3,18	3,15	3,15	3,16	3,15	3,15
	ESEER	(1)	4,82	4,92	4,95	5,12	5,14	5,13	5,18	5,14	5,14	5,14	5,15	5,14
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	49536	63468	70176	80840	87720	93912	101136	115240	126764	134504	140524	145512
	Pressure drop	(1) kPa	36	17	15	15	15	15	14	15	16	17	15	16

TBX - L			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
		V/ph/Hz	400V/3/50Hz											
12°C/7°C	Cooling capacity	(1) kW	259	343	392	436	464	518	543	595	635	688	742	785
	Total power input	(1) kW	88,9	117,9	134,7	149,6	159,3	177,5	186,2	203,8	217,7	236,3	255,0	269,0
	EER	(1)	2,91	2,91	2,91	2,91	2,91	2,92	2,92	2,92	2,92	2,91	2,91	2,92
	ESEER	(1)	4,69	4,77	4,76	4,97	4,97	4,96	5,00	4,97	4,97	4,98	4,97	4,96
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	44646	59065	67577	75047	79911	89292	93568	102495	109444	118477	127858	135154
	Pressure drop	(1) kPa	30	15	19	13	15	16	15	15	17	16	16	17

TBX - A			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
		V/ph/Hz	400V/3/50Hz											
12°C/7°C	Cooling capacity	(1) kW	287	371	416	460	502	538	594	668	740	793	831	861
	Total power input	(1) kW	86,0	110,9	124,8	138,1	150,4	161,1	177,3	199,7	220,8	237,3	248,4	258,1
	EER	(1)	3,33	3,34	3,33	3,33	3,34	3,34	3,35	3,34	3,35	3,34	3,35	3,34
	ESEER	(1)	5,01	5,06	5,04	5,33	5,35	5,35	5,38	5,37	5,37	5,36	5,37	5,34
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	49536	63984	71724	79464	86688	92880	102512	115240	127624	136912	143448	148608
	Pressure drop	(1) kPa	50	41	43	44	44	44	41	43	45	46	45	48

TBX - E			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
		V/ph/Hz	400V/3/50Hz											
12°C/7°C	Cooling capacity	(1) kW	265	355	406	441	474	533	556	614	650	707	768	813
	Total power input	(1) kW	84,8	113,6	130,2	141,2	152,2	170,3	177	196,9	207,8	226,5	246,1	260,1
	EER	(1)	3,13	3,12	3,12	3,13	3,11	3,13	3,14	3,12	3,13	3,12	3,12	3,13
	ESEER	(1)	4,85	4,89	4,82	5,15	5,13	5,13	5,15	5,16	5,14	5,15	5,15	5,14
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate	(1) l/h	45790	61229	70176	76141	81755	91931	95976	105966	112282	122106	132633	140352
	Pressure drop	(1) kPa	44	38	49	40	46	48	46	44	49	47	48	48

Date (14511:2013)

(1) Water evaporator 12°C/7°C, External air 35°C

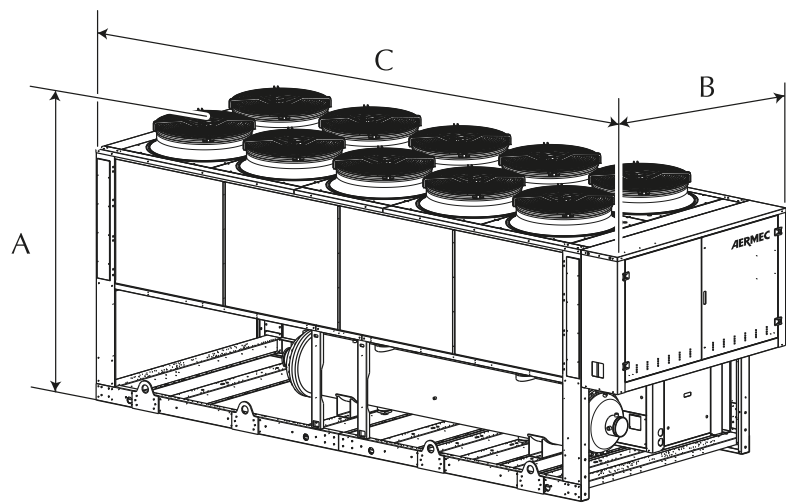
			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102		
Electrical data																
400V	°	Total input currente (cooling)	(3)	A	147	195	216	242	260	280	299	355	389	412	431	447
		Maximum current (FLA)	(3)	A	153	234	240	300	300	306	312	462	468	474	480	480
		Starting current (LRA)	(3)	A	24	30	36	126	126	132	138	188	194	200	206	206
400V	L	Total input currente (cooling)	(3)	A	144	198	225	244	258	287	308	345	366	396	426	449
		Maximum current (FLA)	(3)	A	153	234	240	300	300	306	312	462	462	468	474	480
		Starting current (LRA)	(3)	A	24	30	36	126	126	132	138	188	188	194	200	206
400V	A	Total input currente (cooling)	(3)	A	134	179	200	217	235	251	276	322	355	382	399	413
		Maximum current (FLA)	(3)	A	159	242	250	310	310	318	326	476	484	492	500	500
		Starting current (LRA)	(3)	A	30	38	46	136	136	144	152	202	210	218	226	226
400V	E	Total input currente (cooling)	(3)	A	132	176	209	221	238	265	275	320	337	366	396	417
		Maximum current (FLA)	(3)	A	159	242	250	310	310	318	326	476	476	484	492	500
		Starting current (LRA)	(3)	A	30	38	46	136	136	144	152	202	202	210	218	226
Centrifugal inverter oil-free Compressor																
Compressors / Circuit		n°/n°	1/1	1/1	1/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	2/1	
Refrigerant		Type	R134a													
Heat exchanger system side																
Exchanger		Type/n°	flooded shell & tube/1													
Electrical heater		n°/W	1/170	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	1/250	
Axial fans																
Fan	°	Type/n°	Axial/6	Axial/8	Axial/10	Axial/10	Axial/10	Axial/10	Axial/12	Axial/14	Axial/14	Axial/16	Axial/18	Axial/20	Axial/20	
Air flow rate (cooling)		m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000		
Fan	L	Type/n°	Axial/6	Axial/8	Axial/10	Axial/10	Axial/10	Axial/10	Axial/12	Axial/14	Axial/14	Axial/14	Axial/16	Axial/18	Axial/20	
Air flow rate (cooling)		m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400		
Fan	A	Type/n°	Ax.EC/6	Ax.EC/8	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/12	Ax.EC/14	Ax.EC/14	Ax.EC/16	Ax.EC/18	Ax.EC/20	Ax.EC/20	
Air flow rate (cooling)		m³/h	94200	132800	166000	166000	157000	199200	232400	232400	265600	298800	332000	314000		
Fan	E	Type/n°	Ax.EC/6	Ax.EC/8	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/10	Ax.EC/12	Ax.EC/14	Ax.EC/14	Ax.EC/14	Ax.EC/16	Ax.EC/18	Ax.EC/20	
Air flow rate (cooling)		m³/h	69720	92960	116200	116200	109900	139440	162680	162680	153860	185920	209160	232400		
Sound data (cooling)																
Sound power level	°	dB(A)	88	89	90	90	90	91	92	92	93	93	93	93	93	
Sound pressure level		dB(A)	56	57	58	58	58	58	59	59	60	60	60	60	60	
Sound power level	L	dB(A)	83	84	85	85	85	86	87	87	87	88	88	88		
Sound pressure level		dB(A)	51	52	53	53	53	53	54	54	54	55	55	55		
Sound power level	A	dB(A)	88	89	90	90	90	91	92	92	93	93	93	93		
Sound pressure level		dB(A)	56	57	58	58	58	58	59	59	60	60	60	60		
Sound power level	E	dB(A)	81	82	83	83	83	84	85	85	85	86	86	86		
Sound pressure level		dB(A)	49	50	51	51	51	51	52	52	52	53	53	53		

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)





Model. TBX			1401	1801	2001	2302	2502	2652	2802	3202	3502	3702	3802	4102
Height A	All	mm	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450	2.450
Width B	All	mm	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
Length C	° A	mm	3.780	4.770	5.750	5.750	5.750	7.160	8.150	8.150	9.140	10.120	11.100	11.100
	L E	mm	3.780	4.770	5.750	5.750	5.750	7.160	8.150	8.150	8.150	9.140	10.120	11.100

# AIR / WATER CHILLERS with FREE COOLING

When the cooling of the room is requested throughout the year, even during the winter season, such as in modern communication centers or in industrial applications, it is a waste to consume energy to produce cooling capacity.

To meet these needs, Aermec offers a range of chillers capable of exploiting, free of charge, the external cold air to cool the liquid with a considerable energy saving.

AIR / WATER CHILLER with FREE COOLING		Air flow-rate (m³/h)	Cooling cap. (kW)	Heating cap. (kW)	Page
Units with scroll compressors					
NRL 0280-0750F	Chiller with free cooling	-	59-194	-	338
NRB 0800-3600F	Chiller with free cooling	-	212-1004	-	342
NRB 0800-3600B	Chiller with free cooling glycol free	-	212-1004	-	350
NRV 0550F	Chiller with free cooling	-	99,9-105,4	-	358
Units with screw compressors					
NSM 1402-9603F	Chiller with free cooling	-	306-2028	-	360
NSM 1402-9603B	Chiller with free cooling glycol free	-	306-2028	-	368
NSMI 1251-4402F	Chiller with free cooling and Inverter Compressors		285-989	-	376
NSM 1402-9603FW	Chiller with free cooling HWT	-	306-2001	-	384
NSM 1402-9603BW	Chiller with free cooling glycol free HWT	-	306-1991	-	392

# NRL

**0280/0750**  
**free-cooling**

HFC  
Refrigerant  
**R410A**

**Air/Water chillers for outdoor installation with free cooling**  
**Scroll compressors, plate exchangers and axial fans**  
**Cooling capacity from kW59÷194**



- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **SYSTEM SIDE INTEGRATED HYDRONIC KIT OPTION**

## Features

The NRL free cooling are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.

They are outdoor units with scroll compressors, axial fans, external copper coils with aluminium fins and plate exchanger.

These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving. It is also possible to have the Glycol free version for all those applications where the use of glycol is not allowed

### Versions

**NRL\_FA** High efficiency

**NRL\_FE** Silenced

**NRL\_BA** High efficiency without the use of glycol

**NRL\_BE** Silenced without the use of glycol

## Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Simplified remote panel. Allows performing the basic controls of the unit with alarm signals.
- **C-TOUCH:** 7" touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time
- **MULTICHILLER\_PCO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the exchangers.
- **AERWEB300:** the AERWEB device allows the remote

**Operating range:** Work up to 44°C of outdoor air temperature at full load. For further details refer to the selection software/technical documentation.

- Unit with two refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the two circuits stop.
- Flow switch, water filter and standard high and low pressure transducers
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with or without storage, one or two high static pressure pumps
- Three-way valve located on the water side for water switching on the Free-Cooling coils
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.

control of a chiller by means of a common PC through Ethernet connection, via a common browser; 4 models available:

**AERWEB300-6:** Web server for monitoring and controlling maximum 6 RS485 network devices;

**AERWEB300-18:** Web server for monitoring and controlling maximum 18 RS485 network devices;

**AERWEB300-6G:** Web server for monitoring and controlling maximum 6 RS485 network devices with integrated GPRS modem;

**AERWEB300-18G:** Web server for monitoring and controlling maximum 18 RS485 network devices with integrated GPRS modem;

- **GP:** Protection grids for coils and cooling circuit.

- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation
- Complete, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- Night Mode: it is possible to set a silenced operation profile. Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

- **VT:** Group of anti-vibration mounts.

### Accessories mounted in the factory;

- **DRE:** Peak current reduction electronic device. **Only available with 400V power supply.**
- **RIF:** power factor correction, connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **PRM1:** Manually-rearmed pressure switch, wired in series to the high pressure switch on the flow pipe of the compressor.

## Accessories compatibility

Mod. NRL	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1		*	*	*	*	*	*	*	*	*	*
PGD1		*	*	*	*	*	*	*	*	*	*
C-TOUCH		*	*	*	*	*	*	*	*	*	*
MULTICHILLER_PCO		*	*	*	*	*	*	*	*	*	*
AERWEB300	All	*	*	*	*	*	*	*	*	*	*
GP	(1) All	4	4	4	4	2(x2)	2(x2)	2(x3)	2(x3)	2(x3)	10 (x3)
VT	(00-P3-P4)	17	17	17	17	13	13	22	22	22	23
	(03-04)	13	13	13	13	10	10	22	22	22	23
<b>Accessories mounted in the factory:</b>											
DRE	400V/3N	281	301	331	351	501	551	601	651	701	751
REF	All	50	50	50	51	52	52	53	53	53	53
PRM1	All	*	*	*	*	*	*	*	*	*	*

(1) (x2)(x3) indicates the number of kit to order

## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

- |                |  |
|----------------|--|
| <b>Field</b>   | <b>Description</b>   |
| <b>1,2,3</b>   | <b>NRL</b>   |
| <b>4,5,6,7</b> | <b>Sizes</b><br>0280-0300-0330-0350-0500-0550-0600-0650-0700-0750 (2)  |
| <b>8</b>       | <b>Scope of application</b><br><ul style="list-style-type: none"> <li>° Standard (temperature of water produced up to +4 °C)</li> <li><b>Y</b> Low temperature (temperature of water produced from +4°C to -8°C)</li> <li><b>X</b> Electronic thermostatic valve (temperature of water produced up to +4 °C) for different temperatures, contact the supplier</li> </ul> |
| <b>9</b>       | <b>Model</b><br><b>F</b> Chiller with Free cooling<br><b>K</b> Chiller with Free cooling and low pressure drops<br><b>B</b> Chiller with Free cooling glycol free  |
| <b>10</b>      | <b>Heat recovery</b><br><ul style="list-style-type: none"> <li>° Without heat recovery</li> </ul>  |
| <b>11</b>      | <b>Version</b><br><b>A</b> High efficiency<br><b>E</b> Silenced high efficiency  |
| <b>12</b>      | <b>Coils</b><br><ul style="list-style-type: none"> <li>° Aluminium</li> <li><b>R</b> Copper</li> <li><b>S</b> Tinned copper</li> <li><b>V</b> Painted</li> </ul>   |
| <b>13</b>      | <b>Fans (3)</b><br><ul style="list-style-type: none"> <li>° Standard</li> <li><b>M</b> Increased</li> <li><b>J</b> Inverter</li> </ul>   |
| <b>14</b>      | <b>Power supply</b><br><ul style="list-style-type: none"> <li>° 400V/3N/50Hz with magnet circuit breakers</li> <li><b>1</b> 220V/3/50Hz with magnet circuit breakers</li> </ul>  |
| <b>15-16</b>   | <b>System side integrated hydronic kit (4)</b><br><b>00</b> Without hydronic kit<br><b>03</b> Storage tank with 1 high static pressure pump<br><b>04</b> Storage tank with 2 high static pressure pumps<br><b>P3</b> 1 High static pressure pump<br><b>P4</b> 2 High static pressure pumps   |

(2) Sizes 0280-0300-0330-0350 are only silenced E and are standard fitted with Inverter fans

(3) **Standard on/off fans** for sizes from 0500 to 0750

**Increased on/off fans, option** available for sizes from 0280 to 0650

**Standard Inverter fans** for sizes from 0280 to 0350, without useful static pressure

**Inverter fan, option** for sizes from 0500 to 0750 with useful static pressure

(4) the system side hydronic kit option is not available for the freecooling glycol free "B" models

## Technical data

Freecooling Models			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity	FA	kW	-	-	-	-	99	104	132	144	159	191
	FE	kW	59	65	74	82	91	95	119	130	147	177
Input power	FA	kW	-	-	-	-	33.7	37.3	44.5	51.7	60.8	69.6
	FE	kW	18.1	21.8	24.0	28.3	37.0	40.0	49.2	59.8	65.8	76.4
EER	FA	W/W	-	-	-	-	2.93	2.79	2.96	2.79	2.62	2.75
	FE	W/W	3.26	2.98	3.08	2.90	2.46	2.37	2.42	2.17	2.23	2.32
Water flow rate	FA	l/h	-	-	-	-	17030	17890	22700	24770	27350	32850
	FE	l/h	10150	11180	12730	14100	15650	16340	20470	22360	25280	30440
Total pressure drops	FA	kPa	-	-	-	-	60	69	78	73	87	103
	FE	kPa	63	53	66	58	51	58	63	60	74	89
Cooling capacity	FA/FE	kW	58.0	68.0	83.0	85.0	103.0	104.0	137.0	159.0	174.0	187
Input power	FA/FE	kW	1.05	1.05	1.35	1.35	2.65	2.65	3.9	3.9	5.4	5.4
EER	FA/FE	W/W	55.24	64.76	61.48	62.96	38.87	39.25	35.13	40.77	32.22	34.63
Water flow rate	FA	l/h	-	-	-	-	16006	16815	21342	23282	25707	32850
	FE	l/h	9539	10509	11964	13258	14713	15360	19240	21018	23767	30440
Total pressure drops	FA	kPa	-	-	-	-	70	80	95	95	110	156
	FE	kPa	85	61	76	73	59	66	78	77	94	134

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling (100%)

Evaporator water temperature (in) 15 °C; Outdoor air temperature 2°C

Freecooling glycol free models				0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity	(1)	BA/BE	kW	45	52	64	66	79	80	104	122	133	143
Input power		BA/BE	kW	1.85	1.85	2.35	2.35	3.65	3.65	5.2	5.7	7.7	7.7
EER		BA/BE	W/W	24.32	28.11	27.23	28.09	21.64	21.92	20.00	21.40	17.27	18.57
Water flow rate		BA	l/h	-	-	-	-	17030	17890	22700	24770	27350	32850
		BE	l/h	10150	11180	12730	14100	15650	16340	20470	22360	25280	30440
Total pressure drops		BA/BE	kPa	-	-	-	-	60	69	78	73	87	103
		BE	kPa	63	53	66	58	51	58	63	60	74	89

### Cooling in freecooling glycol free (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

(1) Performance in cooling, operation as chiller, are the same

Freecooling with low pressure loads models			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity	KA	kW	-	-	-	-	101	106	135	147	162	194
	KE	kW	60	66	76	84	93	97	121	133	150	180
Input power	KA	kW	-	-	-	-	33.7	37.3	44.5	51.7	60.8	69.6
	KE	kW	18.1	21.8	24	28.3	37	40	49.2	59.8	65.8	76.4
EER	KA	W/W	-	-	-	-	3	2.84	3.03	2.84	2.67	2.80
	KE	W/W	3.32	3.04	3.15	2.96	2.51	2.42	2.47	2.22	2.28	2.36
Water flow rate	KA	l/h	-	-	-	-	17369	18246	23158	25264	27895	33509
	KE	l/h	10351	11404	12983	14386	15965	16667	20878	22807	25790	31053
Total pressure drops	KA	kPa	-	-	-	-	44	37	42	40	49	34
	KE	kPa	34	41	36	43	38	31	34	33	42	30
Cooling capacity	KA/KE	kW	56	66	81	83	98	99	121	139	153	165
Input power	KA/KE	kW	1.05	1.05	1.35	1.35	2.65	2.65	3.9	3.9	5.4	5.4
EER	KA/KE	W/W	53.6	62.8	59.6	61.1	37	37.3	31.1	35.7	28.2	30.6
Water flow rate	KA	l/h	-	-	-	-	16330	17154	21762	23751	26224	32169
	KE	l/h	9733	10720	12207	13516	15000	15667	19628	21439	24236	29811
Total pressure drops	KA	kPa	-	-	-	-	50	44	51	51	62	64
	KE	kPa	43	45	44	53	42	37	42	42	53	55

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling (100%)

Evaporator water temperature (in) 15 °C; Outdoor air temperature 2°C

## Technical data

GENERAL DATA			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750	
Electrical data													
Total input current (Chiller)	(2)	FA	A	-	-	-	-	61	65	79	84	101	123
	(2)	FE	A	32	38	41	51	67	70	87	97	109	135
Total input current (freecooling)	(2)	FA/FE	A	4.6	4.6	5.9	5.9	5.9	5.9	8.7	8.7	11.6	11.6
	(2)	BA/BE	A	8.1	8.1	10.3	10.3	8.1	8.1	11.6	12.7	16.5	16.5
	(2)	KA/KE	A	4.6	4.6	5.9	5.9	5.9	5.9	8.7	8.7	11.6	11.6
Maximum current (FLA)				46	53	58	63	76	81	100	112	122	144
Peak current (LRA)			A	155	184	190	200	214	220	232	243	261	320
Compressors													
Compressors	type			scroll									
		n°		2	2	2	2	3	3	4	4	4	4
Circuits		n°		2	2	2	2	2	2	2	2	2	2
Refrigerant gas	type			R410A									
System side heat exchanger													
Heat exchanger	type			plates									
		n°		1	1	1	1	1	1	1	1	1	1
Hydraulic connections	(in/out)	Ø		2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½
Standard Fans													
fans	type			axial									
	A	no.		-	-	-	-	2	2	2	2	3	3
	E	no.		6	6	8	8	2	2	2	2	3	3
Air flow rate in cooling mode	A	m³/h		-	-	-	-	32500	32500	50000	49000	56000	56000
	E	m³/h		20000	19000	25000	25000	23400	24100	33500	35300	47600	46500
System side integrated hydronic kit (3)													
Storage tank		l		300	300	300	300	300	300	300	300	300	700
Useful static pressure	A	kPa	refer to the selection program or to the technical documentation										
Sound data													
Sound power		dB(A)		-	-	-	-	82	82	83	84	85	87
		dB(A)		74	74	75	76	76	76	76	77	77	82
Sound Pressure		dB(A)		-	-	-	-	50	50	51	52	53	55
		dB(A)		42	42	43	44	44	44	44	45	45	50
Electric power supply	(4)	V/ph/Hz						400V/3N/50Hz					

(2) The electric data is of the versions without integrated hydronic kit

(3) the system side hydronic kit option is not available for the freecooling glycol free "B" models

(4) 0750 = 400V/3/50Hz

### Sound power

Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

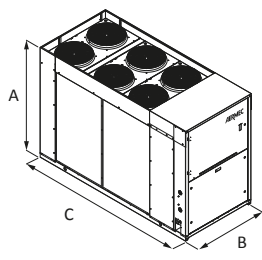
### Sound Pressure

Sound pressure measured in free field, 10 m away from the unit external surface (in compliance with UNI EN ISO 3744).

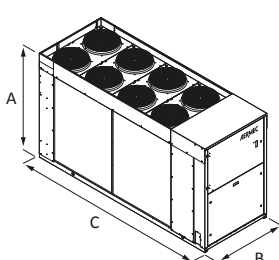
**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

## Dimension and weight data

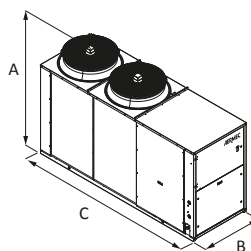
### NRL 0280-0300



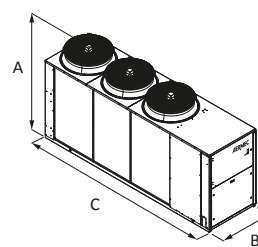
### NRL 0330-0350



### NRL 0500-0550-0600-0650



### NRL 0700-0750



Mod. NRL	U.M.	Vers.	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Height	A	(mm)	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
Width	B	(mm)	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
Length	C	A/E 00	2950	2950	2950	2950	3260	3260	4010	4010	4010	4350
		FA/FE										
		BA/BE										
Loadless weight	A	(kg)	838	908	913	922	1079	1083	1386	1460	1540	1889

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# NRB

**0800/3600  
free-cooling**

**HFC**  
Refrigerant  
**R410A**

*Variable Multi Flow*  
**VMF**

**Air/Water chillers for outdoor installation, with Free-Cooling  
Scroll compressors, plate heat exchanger and axial fans  
Cooling capacity 212-1004kW**



- **HIGH EFFICIENCY EVEN WITH PARTIAL LOADS**
- **MICRO-CHANNEL COIL**
- **NIGHT-TIME MODE**

## Features

NRB Free-Cooling models are chillers designed and built to meet air-conditioning requirements in residential / commercial complexes, or cooling requirements in industrial complexes. They are outdoor units with scroll compressors, axial fans, external copper coils with aluminium fins, and a plate heat exchanger.

They are also fitted with a Free-Cooling coil and are used when the cooling request continues into the winter months, or in any case when the outdoor air temperature is lower than the temperature of the return liquid from the system. In Free Cooling mode (Free Cooling Plus compressors, or just Free Cooling), the fluid is cooled directly by the external air to the point that the compressors can be completely deactivated, thereby ensuring notable electricity savings. A glycol-free version is available for all those applications where the use of glycol is not permitted.

### Versions

- NRB\_FA** High-efficiency
- NRB\_FE** High-efficiency with quiet operation
- NRB\_FU** Super high efficiency
- NRB\_FN** Super high efficiency with quiet operation

**Operating range:** The unit can work at full load with an outdoor temperature of up to 50°C, depending on the size and version. For more details, refer to the technical documentation / selection software.

- Units with 2 refrigerant circuits designed to provide the maximum output at full load, guaranteeing high efficiency even with partial loads and ensuring continuous operation even if one of the circuits stops working.

- The entire range uses micro-channel coils in aluminium, guaranteeing extremely high efficiency levels. This means less refrigerant is used compared with the traditional copper/aluminium coils.
- An electronic thermostatic valve offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.
- Differential pressure switch supplied as standard.
- Butterfly valves in the hydraulic circuit for switching the water to the Free-Cooling coils.
- An optional, integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, and a range of heads.
- DCPX as standard.
- Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures or in Free-Cooling, adapting the air flow rate to the actual system request in order to reduce consumption.
- Microprocessor adjustment, allowing the condensing coils to be disconnected in order to maximise Free-Cooling efficiency even during mixed Free-Cooling and compressor operation.
- Complete with 7" touchscreen keypad** for easy navigation through the various screens, where you can modify the operating parameters and view the real

time trend of certain values in graphic format.

**With Ethernet communication as standard, the same information can also be viewed on a PC** by connecting it to the display (via the IP and browser).

- The timer clock can be used to set operating time bands and a second set-point if required.
- The temperature is controlled via proportional integral logic, according to the water outlet temperature.
- Night-time mode:** this mode offers a quiet operation profile. It's ideal for use during the night for example, as it guarantees less noise whilst still offering optimum efficiency with the highest loads.

## Accessories

- AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- AERWEB300:** The AERWEB device provides the remote control of a chiller via a standard PC using an Ethernet connection and a standard browser; 4 models are available:  
**AERWEB300-6:** Web server to monitor and control up to 6 devices on the RS485 network;  
**AERWEB300-18:** Web server to monitor and control up to 18 devices on the RS485 network;  
**AERWEB300-6G:** Web server to monitor and control up to 6 devices on the RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and control up to 18 devices on the RS485 network with integrated GPRS modem;

- PGD1:** This allows chiller command operations to be implemented from a distance.
- MULTICHILLER\_PCO:** Control system to command, activate and deactivate the individual chillers in a system in which several units are installed in parallel, always ensuring constant delivery to the evaporators.
- FL:** Flow switch  
**Warning: the flow switch and water filter must be fitted. Otherwise, the warranty will be considered null.**
- FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.
- AVX:** Anti-vibration spring supports.

### Accessories installed in the factory

- DRE:** Electronic device for reducing the rated starting current.
- RIF:** Current phase advancer. When connected to the motor in parallel, the input current is reduced (by about 10%).
- GP:** Anti-intrusion grille.
- COMPATIBILITY with the VMF SYSTEM**  
For further information about the system see the specific documentation.

## Compatibility of accessories

NRB mod.	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_PCO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories installed in the factory																		
DRENRB		0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
RIF	A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Refer to the technical documentation

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

### Field Description

#### 1,2,3 NRB

#### 4,5,6,7 Size (1)

0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600

#### 8 Field of use

° Standard (processed water up to +4°C)

**Y** Low temperature (processed water from +4°C to -10°C)

**X** Electronic thermostatic valve (processed water up to +4°C)

**Z** Electronic thermostatic valve low temperature (processed water from +4°C to -10°C)

#### 9 Model

**F** Free Cooling

**P** Free cooling plus (2)

#### 10 Heat recovery

° Without heat recovery

**D** With desuperheater(3)

#### 11 Version

**A** High efficiency

**E** Silenced high efficiency

**U** Extra high efficiency

**N** Silenced extra high efficiency

#### 12 Condensing coils

° Micro-channel aluminium

**O** Painted micro-channel aluminium

**R** Copper - Copper

**S** Copper - Tin-plated

**V** Painted copper / aluminium

#### Free Cooling water coils

Copper Aluminium

Copper Painted aluminium

Copper - Copper

Copper - Tin-plated

Copper Painted aluminium

#### 13 Fans

° Standard

**J** Inverter

#### 14 Power supply

° 400V/3/50Hz with circuit breakers on the compressors and auxiliary circuit

#### 15-16 Integrated hydronic kit

**00** Without hydronic kit

##### With 1 pump:

**PA** Pump A

**PB** Pump B

**PC** Pump C

**PD** Pump D

**PE** Pump E

**PF** Pump F

**PG** Pump G

**PH** Pump H

**PI** Pump I

**PJ** Pump J

##### With 2 pumps:

**DA** Pump A and reserve pump

**DB** Pump B and reserve pump

**DC** Pump C and reserve pump

**DD** Pump D and reserve pump

**DE** Pump E and reserve pump

**DF** Pump F and reserve pump

**DG** Pump G and reserve pump

**DH** Pump H and reserve pump

**DI** Pump I and reserve pump

**DJ** Pump J and reserve pump

##### With 1 pump and accumulation tank:

**AA** Pump A and accumulation tank

**AB** Pump B and accumulation tank

**AC** Pump C and accumulation tank

**AD** Pump D and accumulation tank

**AE** Pump E and accumulation tank

**AF** Pump F and accumulation tank

**AG** Pump G and accumulation tank

**AH** Pump H and accumulation tank

**AI** Pump I and accumulation tank

**AJ** Pump J and accumulation tank

##### With 2 pumps and accumulation tank:

**BA** Pump A with reserve pump and accumulation tank

**BB** Pump B with reserve pump and accumulation tank

**BC** Pump C with reserve pump and accumulation tank

**BD** Pump D with reserve pump and accumulation tank

**BE** Pump E with reserve pump and accumulation tank

**BF** Pump F with reserve pump and accumulation tank

**BG** Pump G with reserve pump and accumulation tank

**BH** Pump H with reserve pump and accumulation tank

**BI** Pump I with reserve pump and accumulation tank

**BJ** Pump J with reserve pump and accumulation tank

(1) Sizes 1800 - 3600 have an electronic thermostatic valve fitted as standard

(2) The Free-Cooling Plus "P" models are only compatible with "om" and "O" coils

(3) "D" heat recovery units not compatible with operating ranges "Y" and "Z" (no YD - ZD)

## Technical data

NRB - FA			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	212	234	273	307	336	373	432	474	542	584	656	720	760	803	878	922	962
	Absorbed power	(1) kW	76	88	94	109	125	146	157	185	201	229	244	259	280	308	321	348	375
	EER	(1)	2.79	2.66	2.91	2.82	2.69	2.56	2.75	2.56	2.70	2.55	2.69	2.78	2.71	2.61	2.73	2.65	2.57
	Water flow rate	(1) l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(1) kPa	49	50	68	76	91	99	64	68	88	96	122	71	78	82	99	108	118
15°C	Cooling power	(2) kW	181,7	184,6	264,1	270,9	275,1	279,1	364,6	369,8	456,1	461,3	548,0	632,6	638,6	644,2	731,2	736,7	741,0
	Absorbed power	(2) kW	7,5	7,5	11,2	11,2	11,2	11,2	15,0	15,0	18,7	18,7	22,5	26,2	26,2	26,2	30,0	30,0	30,0
	EER	(2)	24,2	24,6	23,5	24,1	24,5	24,8	24,3	24,7	24,3	24,6	24,4	24,1	24,3	24,5	24,4	24,6	24,7
	Water flow rate	(2) l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(2) kPa	88	97	101	117	139	158	112	125	144	161	188	119	132	142	159	175	190

NRB - FE			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	221	243	265	310	345	379	439	498	547	610	653	714	753	816	886	926	967
	Absorbed power	(1) kW	73	84	96	107	122	142	155	175	199	219	245	258	279	300	317	343	369
	EER	(1)	3,00	2,88	2,77	2,91	2,82	2,67	2,82	2,85	2,75	2,78	2,67	2,77	2,70	2,72	2,80	2,70	2,62
	Water flow rate	(1) l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(1) kPa	44	53	57	82	90	109	58	75	85	89	102	69	77	85	100	109	119
15°C	Cooling power	(2) kW	214,0	219,0	223,0	289,2	295,9	300,6	371,1	440,5	448,2	518,9	524,8	595,6	600,6	671,7	743,5	749,0	753,6
	Absorbed power	(2) kW	7,9	7,9	7,9	10,5	10,5	10,5	13,1	15,8	15,8	18,4	18,4	21,0	21,0	23,6	26,3	26,3	26,3
	EER	(2)	27,2	27,8	28,3	27,5	28,2	28,6	28,3	28,0	28,5	28,2	28,6	28,4	28,6	28,4	28,3	28,5	28,7
	Water flow rate	(2) l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(2) kPa	67	80	88	120	136	165	95	114	132	139	159	110	122	132	150	163	178

### Data

(1) Water evaporator 12°C/7°C, Outside air 35°C, 0% Free-cooling

(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
<b>Electrical Data</b>																				
Total input current (chiller)	FA	(2)	A	134	152	165	189	215	248	270	316	347	394	423	450	483	529	557	602	646
Total input current (Free-Cooling)			A	15	15	23	23	23	23	30	30	38	38	46	53	53	53	61	61	61
Maximum current (FLA)			A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855
Starting current (LRA)			A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124
Total input current (chiller)	FE	(2)	A	126	142	160	179	205	236	258	292	333	368	411	432	465	501	531	575	619
Total input current (Free-Cooling)			A	11	11	11	15	15	15	18	22	22	26	26	29	29	33	37	37	37
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
<b>Scroll Compressors</b>																				
Compressors / Circuit		no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Coolant gas		Type	R410A																	
<b>System side plate heat exchanger</b>																				
Heat exchanger		no.	1																	
Water connections (IN/OUT)		Ø	see the technical documentation																	
<b>Standard axial fans</b>																				
Fans	FA	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16	
Air flow rate, cooling		m³/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400	
Fans	FE	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20	
Air flow rate, cooling		m³/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000	
<b>Sound Data</b>																				
sound power level	FA	dB(A)	88,0	88,1	90,3	90,2	90,2	90,2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4	
	FE	dB(A)	85,0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91,0	91,5	92,2	92,2	92,8	93,4	93,4	93,4	

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

## Technical data

NRB - FU			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	227	251	276	320	358	396	455	516	569	634	681	742	785	849	920	965	1011
	Absorbed power	(1) kW	74	84	94	106	121	138	153	173	195	216	238	253	272	294	312	335	358
	EER	(1)	3.08	3.00	2.93	3.01	2.97	2.86	2.97	2.98	2.92	2.94	2.86	2.93	2.88	2.89	2.95	2.88	2.83
	Water flow rate	(1) l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(1) kPa	47	57	61	88	97	120	62	81	92	96	111	75	84	92	108	118	130
15°C	Cooling power	(2) kW	250,5	258,2	264,7	339,9	350,6	358,8	440,2	520,4	533,3	615,3	625,6	707,4	716,3	799,0	882,4	892,2	900,7
	Absorbed power	(2) kW	11,2	11,2	11,2	15,0	15,0	15,0	18,7	22,5	22,5	26,2	26,2	30,0	30,0	33,7	37,5	37,5	37,5
	EER	(2)	22,3	23,0	23,5	22,7	23,4	23,9	23,5	23,1	23,7	23,5	23,8	23,6	23,9	23,7	23,5	23,8	24,0
	Water flow rate	(2) l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(2) kPa	71	86	95	128	147	179	103	122	142	150	173	119	133	143	161	177	194

NRB - FN			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	228	252	278	320	358	397	454	511	563	628	675	728	769	837	900	943	985
	Absorbed power	(1) kW	73	82	92	105	119	136	151	171	194	213	236	253	273	292	312	337	362
	EER	(1)	3.15	3.07	3.01	3.06	3.02	2.91	3.01	2.98	2.90	2.94	2.86	2.88	2.82	2.86	2.88	2.80	2.72
	Water flow rate	(1) l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(1) kPa	50	61	66	88	98	120	63	79	90	94	109	72	80	90	103	113	123
15°C	Cooling power	(2) kW	263,0	272,4	280,8	342,2	354,1	363,5	431,2	498,3	510,5	580,2	589,4	657,1	664,7	735,5	805,1	812,8	819,4
	Absorbed power	(2) kW	10,5	10,5	10,5	13,1	13,1	13,1	15,8	18,4	18,4	21,0	21,0	23,6	23,6	26,3	28,9	28,9	28,9
	EER	(2)	25,0	25,9	26,7	26,1	27,0	27,7	27,4	27,1	27,8	27,6	28,1	27,8	28,1	28,0	27,9	28,1	28,4
	Water flow rate	(2) l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(2) kPa	71	86	96	121	139	171	95	115	133	143	164	110	122	134	151	165	180

### Data

(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling

(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
Electrical Data																			
Total input current (chiller)	(2)	A	133	149	166	189	212	240	267	304	341	379	418	444	474	513	547	587	626
Total input current (Free-Cooling)	FU	A	23	23	23	30	30	30	38	46	46	53	53	61	61	68	76	76	76
Maximum current (FLA)		A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)		A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Total input current (chiller)	(2)	A	124	140	156	177	199	227	251	287	325	360	399	425	457	490	525	567	608
Total input current (Free-Cooling)	FN	A	15	15	15	18	18	18	22	26	26	29	29	33	33	37	40	40	40
Maximum current (FLA)		A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913
Starting current (LRA)		A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183
Scroll Compressors																			
Compressors / Circuit		no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2
Coolant gas		Type	R410A																
System side plate heat exchanger																			
Heat exchanger		no.	1																
Water connections (IN/OUT)		Ø	Refer to the technical documentation																
Standard axial fans																			
Fans	FU	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling		m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Fans	FN	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate, cooling		m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
Sound Data																			
sound power level	FU	dB(A)	90,2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6
	FN	dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90,0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

## Technical data

NRB - PA			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	210	232	272	305	333	370	429	470	538	579	651	715	754	797	872	915	954
	Absorbed power	(1) kW	77	89	95	110	126	148	159	187	203	232	247	262	283	312	325	352	380
	EER	(1)	2,74	2,61	2,87	2,77	2,64	2,50	2,70	2,51	2,65	2,49	2,64	2,73	2,66	2,56	2,68	2,60	2,51
	Water flow rate	(1) l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(1) kPa	48	49	67	75	89	97	63	66	87	95	120	70	77	81	97	106	116
15 °C	Cooling power	(2) kW	194,7	197,6	283,1	290,3	294,6	298,4	390,7	395,6	488,6	493,7	587,0	678,1	684,2	689,6	783,3	788,6	792,7
	Absorbed power	(2) kW	7,6	7,6	11,4	11,4	11,4	11,4	15,2	15,2	19,0	19,0	22,9	26,7	26,7	26,7	30,5	30,5	30,5
	EER	(2)	25,6	25,9	24,8	25,4	25,8	26,1	25,6	26,0	25,7	25,9	25,7	25,4	25,7	25,9	25,7	25,9	26,0
	Water flow rate	(2) l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(2) kPa	86	95	100	116	137	155	110	123	142	158	185	117	130	140	157	172	186

NRB - PE			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	219	241	263	308	342	376	435	495	542	605	647	708	746	809	879	918	957
	Absorbed power	(1) kW	74	85	97	108	124	144	157	177	202	222	248	261	282	303	320	347	374
	EER	(1)	2,96	2,83	2,72	2,86	2,76	2,61	2,77	2,80	2,69	2,73	2,61	2,72	2,64	2,67	2,74	2,64	2,56
	Water flow rate	(1) l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(1) kPa	44	53	56	81	89	107	57	74	84	88	100	68	76	84	98	107	117
15 °C	Cooling power	(2) kW	227,5	233,2	237,5	307,8	315,2	320,1	395,2	469,1	477,4	552,7	558,9	634,3	639,5	715,4	791,9	797,6	802,2
	Absorbed power	(2) kW	8,0	8,0	8,0	10,7	10,7	10,7	13,3	16,0	16,0	18,6	18,6	21,3	21,3	24,0	26,6	26,6	26,6
	EER	(2)	28,5	29,2	29,7	28,9	29,6	30,0	29,7	29,4	29,9	29,6	30,0	29,8	30,0	29,8	29,7	29,9	30,1
	Water flow rate	(2) l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(2) kPa	66	79	87	118	134	162	94	113	130	137	156	108	120	130	147	160	174

### Data

- (1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling  
(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Electrical Data																				
Total input current (chiller)		(2)	A	135	154	167	191	217	251	272	320	351	399	427	454	487	534	562	608	653
Total input current (Free-Cooling)		PA	A	15	15	23	23	23	23	31	31	38	38	46	54	54	54	61	61	61
Maximum current (FLA)			A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855
Starting current (LRA)			A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124
Total input current (chiller)		(2)	A	126	144	162	181	206	238	260	294	336	372	415	436	470	506	536	581	626
Total input current (Free-Cooling)		PE	A	11	11	11	15	15	15	18	22	22	26	26	30	30	33	37	37	37
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Scroll Compressors																				
Compressors / Circuit		no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	6/2
Coolant gas		Type	R410A																	
System side plate heat exchanger																				
Heat exchanger		no.	1																	
Water connections (IN/OUT)		Ø	Refer to the technical documentation																	
Standard axial fans																				
Fans		PA	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
Air flow rate, cooling			m³/h	54800	54800	82200	82200	82200	82200	109600	109600	137000	137000	164400	191800	191800	191800	219200	219200	230400
Fans		PE	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate, cooling			m³/h	61800	61800	61800	82400	82400	82400	103000	123600	123600	144200	144200	164800	164800	185400	206000	206000	216000
Sound Data																				
sound power level		PA	dB(A)	88,0	88,1	90,3	90,2	90,2	90,2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4
		PE	dB(A)	85,0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91,0	91,5	92,2	92,2	92,8	93,4	93,4	93,4

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

## Technical data

NRB - PU				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12 °C/7 °C	Cooling power	(1)	kW	226	250	274	319	356	394	453	513	566	630	677	738	780	844	915	959	1004
	Absorbed power	(1)	kW	74	84	95	107	122	140	155	175	197	218	241	255	275	297	315	338	361
	EER	(1)		3,04	2,96	2,89	2,97	2,92	2,82	2,93	2,94	2,87	2,89	2,81	2,89	2,84	2,85	2,91	2,84	2,78
	Water flow rate	(1)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(1)	kPa	46	57	60	87	96	118	62	80	91	95	110	74	83	91	106	117	128
15 °C	Cooling power	(2)	kW	267,7	276,5	283,7	363,7	375,7	384,7	471,8	557,5	571,7	659,5	670,6	758,2	767,9	856,5	945,9	956,4	965,5
	Absorbed power	(2)	kW	11,4	11,4	11,4	15,2	15,2	15,2	19,0	22,9	22,9	26,7	26,7	30,5	30,5	34,3	38,1	38,1	38,1
	EER	(2)		23,4	24,2	24,8	23,9	24,7	25,3	24,8	24,4	25,0	24,7	25,2	24,9	25,2	25,0	24,8	25,1	25,4
	Water flow rate	(2)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(2)	kPa	70	85	94	126	145	177	102	121	141	148	171	118	131	141	159	175	191

NRB - PN				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	227	251	277	319	356	395	452	508	560	625	671	724	764	831	894	936	978
	Absorbed power	(1)	kW	73	83	93	105	120	138	152	173	196	216	239	256	276	296	316	341	366
	EER	(1)		3.11	3.03	2,97	3,02	2,98	2,87	2,97	2,94	2,86	2,90	2,81	2,83	2,77	2,81	2,83	2,75	2,67
	Water flow rate	(1)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(1)	kPa	50	60	65	87	97	119	62	78	89	93	108	71	79	88	102	111	122
15 °C	Cooling power	(2)	kW	277,0	288,3	298,1	362,3	376,2	387,0	458,8	529,6	543,5	617,5	627,7	699,7	708,0	783,3	857,4	865,8	872,8
	Absorbed power	(2)	kW	10,7	10,7	10,7	13,3	13,3	13,3	16,0	18,6	18,6	21,3	21,3	24,0	24,0	26,6	29,3	29,3	29,3
	EER	(2)		26,0	27,1	28,0	27,2	28,3	29,1	28,7	28,4	29,2	29,0	29,5	29,2	29,5	29,4	29,3	29,6	29,8
	Water flow rate	(2)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(2)	kPa	70	86	96	120	138	169	94	114	132	141	162	108	121	132	149	163	177

### Data

- (1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling  
(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
<b>Electrical Data</b>																				
Total input current (chiller)	PU	(2)	A	134	150	167	190	213	242	269	306	344	382	421	447	478	517	551	591	631
Total input current (Free-Cooling)		A	23	23	23	31	31	31	38	46	46	54	54	61	61	69	77	77	77	
Maximum current (FLA)		A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894	
Starting current (LRA)	PN	A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163	
Total input current (chiller)		(2)	A	125	141	157	178	201	229	253	289	328	362	402	429	461	494	529	572	614
Total input current (Free-Cooling)		A	15	15	15	18	18	18	22	26	26	30	30	33	33	37	41	41	41	
Maximum current (FLA)		A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913	
Starting current (LRA)	A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183		
<b>Scroll Compressors</b>																				
Compressors / Circuit		no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Coolant gas		Type	R410A																	
<b>System side plate heat exchanger</b>																				
Heat exchanger		no.	1																	
Water connections (IN/OUT)		Ø	Refer to the technical documentation																	
<b>Standard axial fans</b>																				
Fans	PU	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20	
Air flow rate, cooling		m³/h	82200	82200	82200	109600	109600	109600	137000	164400	164400	191800	191800	219200	219200	246600	274000	274000	288000	
Fans	PN	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22	
Air flow rate, cooling		m³/h	82400	82400	82400	103000	103000	103000	123600	144200	144200	164800	164800	185400	185400	206000	226600	226600	237600	
<b>Sound Data</b>																				
sound power level	PU	dB(A)	90,2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6	
	PN	dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90,0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9	

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

### Data

- (1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling  
(2) Evaporator water 15°C; Outside air 2°C



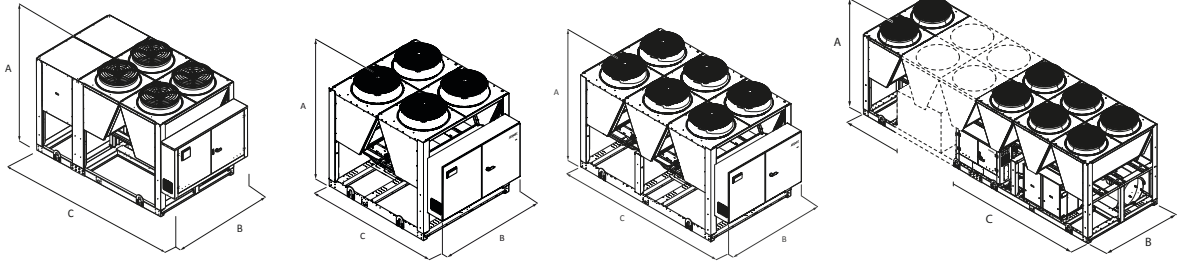
Dimensions (mm)

(1) Versions with accumulation tank  
NRB0800-0900 A (\*)

NRB0900A

NRB1000-1400 A  
NRB0800-1000 E/U

NRB1600-3600 A  
NRB1100-3600 E/U  
NRB0800-3600 N



NRB				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	A	ALL	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	B	ALL	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780*	2780*	3970	3970	3970	3970	3970	5160	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
	E	mm	3970	3970	3970	5160	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	U	mm	3970	3970	3970	5160	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	5160	5160	5160	6350	6350	6350	6350	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

\* Depth of models without hydronic kit or with pumps. For models with an accumulation tank, the depth is 3970mm

# NRB

**0800/3600**  
**glycol-free**

HFC  
Refrigerant  
**R410A**

Variable Multi Flow<sup>®</sup>  
VMF

**Air/Water chillers for outdoor installation, with Free Cooling (glycol-free)**  
**Scroll compressors, plate heat exchanger and axial fans**  
**Cooling capacity 212-1004kW**



- **HIGH EFFICIENCY EVEN WITH PARTIAL LOADS**
- **MICRO-CHANNEL COIL**
- **NIGHT-TIME MODE**

## Features

NRB Free-Cooling models are chillers designed and built to meet air-conditioning requirements in residential / commercial complexes, or cooling requirements in industrial complexes. They are outdoor units with scroll compressors, axial fans, external copper coils with aluminium fins, and a plate heat exchanger.

They are also fitted with a Free-Cooling coil and are used when the cooling request continues into the winter months, or in any case when the outdoor air temperature is lower than the temperature of the return liquid from the system. In Free Cooling mode (Free Cooling Plus compressors, or just Free Cooling), the fluid is cooled directly by the external air to the point that the compressors can be completely deactivated, thereby ensuring notable electricity savings. A glycol-free version is available for all those applications where the use of glycol is not permitted.

### Versions

- NRB\_FA** High-efficiency
- NRB\_FE** High-efficiency with quiet operation
- NRB\_FU** Super high efficiency
- NRB\_FN** Super high efficiency with quiet operation

**Operating range:** The unit can work at full load with an outdoor temperature of up to 50°C, depending on the size and version. For more details, refer to the technical documentation / selection software.

- Units with 2 refrigerant circuits designed to provide the maximum output at full load, guaranteeing high efficiency even with partial loads and ensuring continuous operation even if one of the circuits stops working.
- The entire range uses micro-channel coils in aluminium,

guaranteeing extremely high efficiency levels. This means less refrigerant is used compared with the traditional copper/aluminium coils.

- An electronic thermostatic valve offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.
- Differential pressure switch supplied as standard.
- Intermediate plate heat exchanger that creates two circuits:  
**the glycol hydraulic circuit** (glycol is added to protect the coil from freezing),  
**and the primary hydraulic circuit for glycol-free systems.**
- An optional, integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, and a range of heads.
- DCPX as standard.
- Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures or in Free-Cooling, adapting the air flow rate to the actual system request in order to reduce consumption.
- Microprocessor adjustment, allowing the condensing coils to be disconnected in order to maximise Free-Cooling efficiency even during mixed Free-Cooling and compressor operation.
- Complete with 7" touchscreen keypad** for easy navigation

through the various screens, where you can modify the operating parameters and view the real time trend of certain values in graphic format.

**With Ethernet communication as standard, the same information can also be viewed on a PC** by connecting it to the display (via the IP and browser).

- The timer clock can be used to set operating time bands and a second set-point if required.
- The temperature is controlled via proportional integral logic, according to the water outlet temperature.
- Night-time mode:** this mode offers a quiet operation profile. It's ideal for use during the night for example, as it guarantees less noise whilst still offering optimum efficiency with the highest loads.

## Accessories

- AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- AERWEB300:** The AERWEB device provides the remote control of a chiller via a standard PC using an Ethernet connection and a standard browser; 4 models are available:  
**AERWEB300-6:** Web server to monitor and control up to 6 devices on the RS485 network;  
**AERWEB300-18:** Web server to monitor and control up to 18 devices on the RS485 network;  
**AERWEB300-6G:** Web server to monitor and control up to 6 devices on the RS485 network with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and control

- up to 18 devices on the RS485 network with integrated GPRS modem;
- PGD1:** This allows chiller command operations to be implemented from a distance.
- MULTICHILLER\_PCO:** Control system to command, activate and deactivate the individual chillers in a system in which several units are installed in parallel, always ensuring constant delivery to the evaporators.
- FL:** Flow switch  
**Warning: the flow switch and water filter must be fitted. Otherwise, the warranty will be considered null.**
- FB1:** Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-

expanded aluminium mesh, with particularly low pressure drops.

- AVX:** Anti-vibration spring supports.

### Accessories installed in the factory

- DRE:** Electronic device for reducing the rated starting current.
- RIF:** Current phase advancer. When connected to the motor in parallel, the input current is reduced (by about 10%).
- GP:** Anti-intrusion grille.
- COMPATIBILITY with the VMF SYSTEM**  
For further information about the system see the specific documentation.

## Compatibility of accessories

NRB mod.	vers.	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
AER485P1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_PCO		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Accessories installed in the factory																		
DRENRB		0800	0900	1000	1100	1200	1400	1600	-	-	-	-	-	-	-	-	-	-
RIF	A	0800	0900	1000	1100	1200	1400	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	E	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	U	0800	0900	1000	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
	N	0801	0901	1001	1101	1201	1401	1601	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
GP	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Refer to the technical documentation

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

<b>Field</b>	<b>Description</b>												
<b>1,2,3</b>	<b>NRB</b>												
<b>4,5,6,7</b>	<b>Size (1)</b> 0800-0900-1000-1100-1200-1400-1600-1800-2000-2200-2400-2600-2800-3000-3200-3400-3600												
<b>8</b>	<b>Field of use</b> <ul style="list-style-type: none"> <li>° Standard (processed water up to +4°C)</li> <li><b>Y</b> Low temperature (processed water from +4°C to -10°C)</li> <li><b>X</b> Electronic thermostatic valve (processed water up to +4°C)</li> <li><b>Z</b> Electronic thermostatic valve low temperature (processed water from +4°C to -10°C)</li> </ul>												
<b>9</b>	<b>Model</b> <ul style="list-style-type: none"> <li><b>B</b> Free-Cooling (glycol-free)</li> <li><b>G</b> Free-Cooling Plus (glycol-free) (2)</li> </ul>												
<b>10</b>	<b>Heat recovery</b> <ul style="list-style-type: none"> <li>° Without heat recovery</li> <li><b>D</b> With desuperheater(3)</li> </ul>												
<b>11</b>	<b>Version</b> <ul style="list-style-type: none"> <li><b>A</b> High efficiency</li> <li><b>E</b> Silenced high efficiency</li> <li><b>U</b> Extra high efficiency</li> <li><b>N</b> Silenced extra high efficiency</li> </ul>												
<b>12</b>	<table border="0"> <tr> <td><b>Condensing coils</b></td><td><b>Free Cooling water coils</b></td></tr> <tr> <td>° Micro-channel aluminium</td><td>Copper Aluminium</td></tr> <tr> <td><b>O</b> Painted micro-channel aluminium</td><td>Copper Painted aluminium</td></tr> <tr> <td><b>R</b> Copper - Copper (3)</td><td>Copper - Copper</td></tr> <tr> <td><b>S</b> Copper - Tin-plated (3)</td><td>Copper - Tin-plated</td></tr> <tr> <td><b>V</b> Painted copper / aluminium (3)</td><td>Copper Painted aluminium</td></tr> </table>	<b>Condensing coils</b>	<b>Free Cooling water coils</b>	° Micro-channel aluminium	Copper Aluminium	<b>O</b> Painted micro-channel aluminium	Copper Painted aluminium	<b>R</b> Copper - Copper (3)	Copper - Copper	<b>S</b> Copper - Tin-plated (3)	Copper - Tin-plated	<b>V</b> Painted copper / aluminium (3)	Copper Painted aluminium
<b>Condensing coils</b>	<b>Free Cooling water coils</b>												
° Micro-channel aluminium	Copper Aluminium												
<b>O</b> Painted micro-channel aluminium	Copper Painted aluminium												
<b>R</b> Copper - Copper (3)	Copper - Copper												
<b>S</b> Copper - Tin-plated (3)	Copper - Tin-plated												
<b>V</b> Painted copper / aluminium (3)	Copper Painted aluminium												
<b>13</b>	<b>Fans</b> <ul style="list-style-type: none"> <li>° Standard</li> <li><b>J</b> Inverter</li> </ul>												
<b>14</b>	<b>Power supply</b> <ul style="list-style-type: none"> <li>° 400V/3/50Hz with circuit breakers on the compressors and auxiliary circuit</li> </ul>												
<b>15-16</b>	<b>Integrated hydronic kit</b> <ul style="list-style-type: none"> <li><b>00</b> Without hydronic kit</li> <li><b>With 1 pump:</b> <ul style="list-style-type: none"> <li><b>PA</b> Pump A</li> <li><b>PB</b> Pump B</li> <li><b>PC</b> Pump C</li> <li><b>PD</b> Pump D</li> <li><b>PE</b> Pump E</li> <li><b>PF</b> Pump F</li> <li><b>PG</b> Pump G</li> <li><b>PH</b> Pump H</li> <li><b>PI</b> Pump I</li> <li><b>PJ</b> Pump J</li> </ul> </li> <li><b>With 2 pumps:</b> <ul style="list-style-type: none"> <li><b>DA</b> Pump A and reserve pump</li> <li><b>DB</b> Pump B and reserve pump</li> <li><b>DC</b> Pump C and reserve pump</li> <li><b>DD</b> Pump D and reserve pump</li> <li><b>DE</b> Pump E and reserve pump</li> <li><b>DF</b> Pump F and reserve pump</li> <li><b>DG</b> Pump G and reserve pump</li> <li><b>DH</b> Pump H and reserve pump</li> <li><b>DI</b> Pump I and reserve pump</li> <li><b>DJ</b> Pump J and reserve pump</li> </ul> </li> </ul>												

(1) Sizes 1800 - 3600 have an electronic thermostatic valve fitted as standard

(2) The Free-Cooling glycol-free Plus "G" models are only compatible with "°" and "O" coils

(3) "D" heat recovery units not compatible with operating ranges "Y" and "Z" (no YD - ZD)

## Technical data

NRB - BA			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	212	234	273	307	336	373	432	474	542	584	656	720	760	803	878	922	962
	Absorbed power	(1) kW	76	88	94	109	125	146	157	185	201	229	244	259	280	308	321	348	375
	EER	(1)	2.79	2.66	2.91	2.82	2.69	2.56	2.75	2.56	2.70	2.55	2.69	2.78	2.71	2.61	2.73	2.65	2.57
	Water flow rate	(1) l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(1) kPa	75	83	101	118	129	150	128	151	134	144	156	123	138	144	174	192	195
15 °C	Cooling power	(2) kW	151,9	154,4	209,7	218,5	223,2	229,6	303,4	307,4	387,9	391,5	467,8	542,0	545,7	555,9	617,4	620,3	622,6
	Absorbed power	(2) kW	9,8	9,8	14,3	14,3	14,4	14,4	19,2	19,2	24,4	24,4	32,1	37,2	37,2	37,3	41,2	41,2	41,2
	EER	(2)	15,5	15,7	14,6	15,2	15,5	16,0	15,8	16,0	15,9	16,1	14,6	14,6	14,6	14,9	15,0	15,1	15,1
	Water flow rate	(2) l/h	36440	40290	47020	52820	57780	64210	74300	81560	93260	100510	112760	123870	130640	138170	151030	158660	165510
	pressure drops	(2) kPa	75	83	101	118	129	150	128	151	134	144	156	123	138	144	174	192	195

NRB - BE			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	221	243	265	310	345	379	439	498	547	610	653	714	753	816	886	926	967
	Absorbed power	(1) kW	73	84	96	107	122	142	155	175	199	219	245	258	279	300	317	343	369
	EER	(1)	3,00	2,88	2,77	2,91	2,82	2,67	2,82	2,85	2,75	2,78	2,67	2,77	2,70	2,72	2,80	2,70	2,62
	Water flow rate	(1) l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(1) kPa	70	79	93	113	126	152	125	158	131	158	156	122	137	150	179	183	199
15 °C	Cooling power	(2) kW	176,2	179,3	182,0	237,8	243,8	247,3	310,9	377,7	391,8	445,7	449,8	512,0	515,4	572,3	634,0	637,2	639,9
	Absorbed power	(2) kW	11,0	11,0	11,0	14,6	14,6	14,6	18,5	24,8	25,3	28,9	28,9	32,1	32,1	34,9	41,3	41,3	41,3
	EER	(2)	16,1	16,4	16,6	16,3	16,7	16,9	16,8	15,2	15,5	15,4	15,6	15,9	16,0	16,4	15,3	15,4	15,5
	Water flow rate	(2) l/h	37940	41730	45620	53370	59290	65230	75430	85680	94060	104940	112290	122810	129480	140310	152350	159310	166270
	pressure drops	(2) kPa	70	79	93	113	126	152	125	158	131	158	156	122	137	150	179	183	199

### Data

(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling

(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
<b>Electrical Data</b>																				
Total input current (chiller)	BA	(2)	A	134	152	165	189	215	248	270	316	347	394	423	450	483	529	557	602	646
Total input current (Free-Cooling)		A	19	19	28	28	29	29	38	38	48	48	62	72	72	72	80	80	80	
Maximum current (FLA)		A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855	
Starting current (LRA)		A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124	
Total input current (chiller)	BE	(2)	A	126	142	160	179	205	236	258	292	333	368	411	432	465	501	531	575	619
Total input current (Free-Cooling)		A	17	17	17	22	22	22	27	37	38	43	43	48	48	52	61	61	61	
Maximum current (FLA)		A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894	
Starting current (LRA)		A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163	
<b>Scroll Compressors</b>																				
Compressors / Circuit	no.		4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Coolant gas	Type		R410A																	
<b>System side plate heat exchanger</b>																				
Heat exchanger	no.		1																	
Water connections (IN/OUT)	Ø		Refer to the technical documentation																	
<b>Standard axial fans</b>																				
Fans	BA	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16	
Air flow rate, cooling		m³/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400	
Fans	BE	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20	
Air flow rate, cooling		m³/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000	
<b>Sound Data</b>																				
sound power level	BA	dB(A)	88,0	88,1	90,3	90,2	90,2	90,2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4	
	BE	dB(A)	85,0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91,0	91,5	92,2	92,2	92,8	93,4	93,4	93,4	

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

## Technical data

NRB - BU			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	227	251	276	320	358	396	455	516	569	634	681	742	785	849	920	965	1011
	Absorbed power	(1) kW	74	84	94	106	121	138	153	173	195	216	238	253	272	294	312	335	358
	EER	(1)	3.08	3.00	2.93	3.01	2.97	2.86	2.97	2.98	2.92	2.94	2.86	2.93	2.88	2.89	2.95	2.88	2.83
	Water flow rate	(1) l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(1) kPa	74	84	101	120	136	166	135	169	142	171	170	132	149	163	193	198	217
15°C	Cooling power	(2) kW	202,1	206,3	210,0	273,0	281,2	286,0	360,0	438,5	458,1	518,7	524,0	596,2	600,7	665,1	736,4	740,5	744,0
	Absorbed power	(2) kW	14,3	14,3	14,3	19,1	19,1	19,1	24,1	31,6	32,0	36,8	36,8	41,1	41,1	45,0	52,6	52,6	52,6
	EER	(2)	14,1	14,4	14,7	14,3	14,7	15,0	14,9	13,9	14,3	14,1	14,3	14,5	14,6	14,8	14,0	14,1	14,2
	Water flow rate	(2) l/h	39090	43150	47430	55110	61560	68160	78330	88740	97900	109000	117110	127630	135030	146070	158190	166010	173820
	pressure drops	(2) kPa	74	84	101	120	136	166	135	169	142	171	170	132	149	163	193	198	217

NRB - BN			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1) kW	228	252	278	320	358	397	454	511	563	628	675	728	769	837	900	943	985
	Absorbed power	(1) kW	73	82	92	105	119	136	151	171	194	213	236	253	273	292	312	337	362
	EER	(1)	3.15	3.07	3.01	3.06	3.02	2.91	3.01	2.98	2.90	2.94	2.86	2.88	2.82	2.86	2.88	2.80	2.72
	Water flow rate	(1) l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(1) kPa	70	80	96	120	136	158	131	166	139	168	167	119	134	158	174	194	209
15°C	Cooling power	(2) kW	220,3	225,4	229,9	276,8	285,8	297,7	372,1	419,7	440,5	490,1	495,0	564,0	568,3	629,6	677,5	681,1	684,2
	Absorbed power	(2) kW	14,5	14,5	14,5	18,1	18,2	18,2	24,8	28,3	28,9	31,6	31,6	34,9	34,9	41,3	44,0	44,0	44,0
	EER	(2)	15,1	15,5	15,8	15,3	15,7	16,3	15,0	14,9	15,2	15,5	15,7	16,2	16,3	15,2	15,4	15,5	15,5
	Water flow rate	(2) l/h	39270	43420	47810	55090	61630	68310	78160	87880	96890	108100	116150	125260	132330	143980	154790	162140	169490
	pressure drops	(2) kPa	70	80	96	120	136	158	131	166	139	168	167	119	134	158	174	194	209

### Data

(1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling

(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
<b>Electrical Data</b>																				
Total input current (chiller)	BU	(2)	A	133	149	166	189	212	240	267	304	341	379	418	444	474	513	547	587	626
Total input current (Free-Cooling)		A	28	28	28	37	37	37	47	61	62	71	71	79	79	87	101	101	101	
Maximum current (FLA)		A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894	
Starting current (LRA)		A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163	
Total input current (chiller)	BN	(2)	A	124	140	156	177	199	227	251	287	325	360	399	425	457	490	525	567	608
Total input current (Free-Cooling)		A	21	21	21	27	27	27	37	42	43	47	47	52	52	61	65	65	65	
Maximum current (FLA)		A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913	
Starting current (LRA)		A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183	
<b>Scroll Compressors</b>																				
Compressors / Circuit		no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Coolant gas		Type	R410A																	
<b>System side plate heat exchanger</b>																				
Heat exchanger		no.	1																	
Water connections (IN/OUT)		Ø	Refer to the technical documentation																	
<b>Standard axial fans</b>																				
Fans	BU	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20	
Air flow rate, cooling		m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000	
Fans	BN	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22	
Air flow rate, cooling		m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600	
<b>Sound Data</b>																				
sound power level	BU	dB(A)	90,2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6	
	BN	dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90,0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9	

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

## Technical data

NRB - GA				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	210	232	272	305	333	370	429	470	538	579	651	715	754	797	872	915	954
	Absorbed power	(1)	kW	77	89	95	110	126	148	159	187	203	232	247	262	283	312	325	352	380
	EER	(1)		2,74	2,61	2,87	2,77	2,64	2,50	2,70	2,51	2,65	2,49	2,64	2,73	2,66	2,56	2,68	2,60	2,51
	Water flow rate	(1)	l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(1)	kPa	74	82	100	117	127	147	126	148	132	141	154	121	136	141	171	189	192
15 °C	Cooling power	(2)	kW	158,9	161,6	218,0	227,5	232,6	239,7	316,8	321,1	405,9	409,8	490,2	568,1	572,1	583,7	646,3	649,5	652,0
	Absorbed power	(2)	kW	9,9	9,9	14,5	14,5	14,6	14,6	19,5	19,5	24,6	24,6	32,4	37,7	37,7	37,7	41,7	41,7	41,7
	EER	(2)		16,0	16,3	15,0	15,7	16,0	16,5	16,3	16,5	16,5	16,6	15,1	15,1	15,2	15,5	15,5	15,6	15,6
	Water flow rate	(2)	l/h	36180	39970	46770	52470	57330	63580	73780	80810	92570	99620	111940	123050	129690	137020	149950	157370	164040
	pressure drops	(2)	kPa	74	82	100	117	127	147	126	148	132	141	154	121	136	141	171	189	192

NRB - GE				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	219	241	263	308	342	376	435	495	542	605	647	708	746	809	879	918	957
	Absorbed power	(1)	kW	74	85	97	108	124	144	157	177	202	222	248	261	282	303	320	347	374
	EER	(1)		2.96	2.83	2.72	2.86	2.76	2.61	2.77	2.80	2.69	2.73	2.61	2.72	2.64	2.67	2.74	2.64	2.56
	Water flow rate	(1)	l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(1)	kPa	44	53	56	81	89	107	57	74	84	88	100	68	76	84	98	107	117
15 °C	Cooling power	(2)	kW	182,8	186,2	189,1	247,0	253,3	257,2	323,4	393,2	408,6	464,2	468,6	533,4	537,1	596,1	660,4	663,7	666,7
	Absorbed power	(2)	kW	11,1	11,1	11,1	14,7	14,8	14,8	18,7	25,0	25,5	29,2	29,2	32,4	32,4	35,3	41,7	41,7	41,7
	EER	(2)		16,5	16,8	17,1	16,8	17,2	17,4	17,3	15,7	16,0	15,9	16,1	16,5	16,6	16,9	15,8	15,9	16,0
	Water flow rate	(2)	l/h	37740	41460	45270	53040	58850	64630	74860	85080	93300	104130	111310	121840	128340	139130	151170	157930	164680
	pressure drops	(2)	kPa	69	78	92	111	124	150	123	156	129	156	153	120	134	148	176	179	195

### Data

- (1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling  
(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
<b>Electrical Data</b>																				
Total input current (chiller)	GA	(2)	A	135	154	167	191	217	251	272	320	351	399	427	454	487	534	562	608	653
Total input current (Free-Cooling)			A	20	20	29	29	29	29	38	38	48	48	62	72	72	72	80	80	80
Maximum current (FLA)			A	190	207	243	272	301	330	379	420	480	521	587	639	672	713	773	814	855
Starting current (LRA)			A	379	434	470	523	552	664	713	689	749	790	856	909	941	982	1043	1084	1124
Total input current (chiller)	GE	(2)	A	126	144	162	181	206	238	260	294	336	372	415	436	470	506	536	581	626
Total input current (Free-Cooling)			A	17	17	17	22	22	22	28	38	38	43	43	48	48	52	62	62	62
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)			A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
<b>Scroll Compressors</b>																				
Compressors / Circuit		no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Coolant gas		Type	R410A																	
<b>System side plate heat exchanger</b>																				
Heat exchanger		no.	1																	
Water connections (IN/OUT)		Ø	Refer to the technical documentation																	
<b>Standard axial fans</b>																				
Fans	GA	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16	
Air flow rate, cooling		m³/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400	
Fans	GE	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20	
Air flow rate, cooling		m³/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000	
<b>Sound Data</b>																				
sound power level	GA	dB(A)	88,0	88,1	90,3	90,2	90,2	90,2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4	
	GE	dB(A)	85,0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91,0	91,5	92,2	92,2	92,8	93,4	93,4	93,4	

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.



## Technical data

NRB - GU				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12 °C/7 °C	Cooling power	(1)	kW	226	250	274	319	356	394	453	513	566	630	677	738	780	844	915	959	1004
	Absorbed power	(1)	kW	74	84	95	107	122	140	155	175	197	218	241	255	275	297	315	338	361
	EER	(1)		3,04	2,96	2,89	2,97	2,92	2,82	2,93	2,94	2,87	2,89	2,81	2,89	2,84	2,85	2,91	2,84	2,78
	Water flow rate	(1)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(1)	kPa	73	84	99	119	134	164	133	168	141	169	168	131	147	161	191	196	215
15 °C	Cooling power	(2)	kW	209,8	214,3	218,2	283,3	292,2	297,4	374,7	457,1	479,5	541,3	547,2	622,7	627,7	693,9	768,5	773,0	776,8
	Absorbed power	(2)	kW	14,5	14,5	14,5	19,3	19,3	19,3	24,4	31,9	32,4	37,2	37,2	41,6	41,6	45,6	53,2	53,2	53,2
	EER	(2)		14,5	14,8	15,0	14,7	15,1	15,4	14,3	14,8	14,6	14,7	15,0	15,1	15,2	14,5	14,5	14,6	14,6
	Water flow rate	(2)	l/h	38910	42940	47170	54840	61230	67730	77910	88280	97340	108400	116410	126920	134220	145220	157320	165030	172740
	pressure drops	(2)	kPa	73	84	99	119	134	164	133	168	141	169	168	131	147	161	191	196	215

NRB - GN				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
12°C/7°C	Cooling power	(1)	kW	227	251	277	319	356	395	452	508	560	625	671	724	764	831	894	936	978
	Absorbed power	(1)	kW	73	83	93	105	120	138	152	173	196	216	239	256	276	296	316	341	366
	EER	(1)		3.11	3.03	2,97	3,02	2,98	2,87	2,97	2,94	2,86	2,90	2,81	2,83	2,77	2,81	2,83	2,75	2,67
	Water flow rate	(1)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(1)	kPa	70	79	95	119	134	156	130	164	137	166	165	117	132	156	172	192	206
15 °C	Cooling power	(2)	kW	228,1	233,5	238,4	286,7	296,3	309,2	387,1	436,1	458,5	509,7	515,0	587,1	591,7	655,6	704,8	708,7	712,0
	Absorbed power	(2)	kW	14,7	14,7	14,7	18,3	18,4	18,4	25,0	28,5	29,2	31,9	31,9	35,3	35,3	41,7	44,4	44,4	44,4
	EER	(2)		15,5	15,9	16,2	15,7	16,1	16,8	15,5	15,3	15,7	16,0	16,1	16,7	16,8	15,7	15,9	15,9	16,0
	Water flow rate	(2)	l/h	39120	43230	47590	54830	61290	67880	77730	87390	96280	107440	115350	124450	131400	143000	153780	160980	168180
	pressure drops	(2)	kPa	70	79	95	119	134	156	130	164	137	166	165	117	132	156	172	192	206

### Data

- (1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling  
(2) Evaporator water 15°C; Outside air 2°C

			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	
Electrical Data																				
Total input current (chiller)	GU	(2)	A	134	150	167	190	213	242	269	306	344	382	421	447	478	517	551	591	631
Total input current (Free-Cooling)			A	29	29	29	38	38	38	47	61	62	71	71	80	80	88	102	102	102
Maximum current (FLA)			A	210	226	243	291	321	350	398	464	505	565	606	659	692	752	812	853	894
Starting current (LRA)	GN		A	398	454	470	542	571	684	732	734	774	835	876	928	961	1021	1081	1122	1163
Total input current (chiller)		(2)	A	125	141	157	178	201	229	253	289	328	362	402	429	461	494	529	572	614
Total input current (Free-Cooling)			A	22	22	22	27	27	27	38	42	43	47	47	52	52	62	65	65	65
Maximum current (FLA)			A	229	246	262	311	340	369	423	484	525	585	626	678	711	771	832	872	913
Starting current (LRA)			A	418	473	489	561	591	703	758	753	794	854	895	947	980	1041	1101	1142	1183
Scroll Compressors																				
Compressors / Circuit		no.	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	5/2	6/2	6/2	6/2	6/2	6/2	
Coolant gas		Type	R410A																	
System side plate heat exchanger																				
Heat exchanger		no.	1																	
Water connections (IN/OUT)		Ø	Refer to the technical documentation																	
Standard axial fans																				
Fans	GU	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20	
Air flow rate, cooling		m³/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000	
Fans	GN	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22	
Air flow rate, cooling		m³/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600	
Sound Data																				
sound power level	GU	dB(A)	90,2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6	
	GN	dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90,0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9	

(2) Unit with standard configuration and operation, without integrated hydronic kit

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

### Data

- (1) Water evaporator 12°C/7°C, Outside air 35°C; 0% Free-cooling  
(2) Evaporator water 15°C; Outside air 2°C

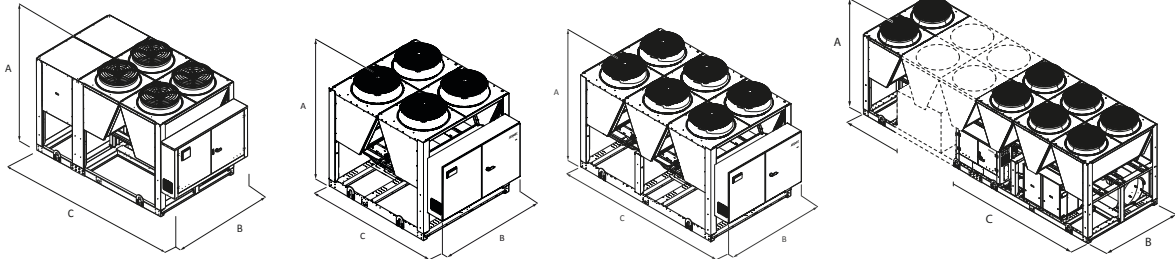
Dimensions (mm)

(1) Versions with accumulation tank  
NRB0800-0900 A (\*)

NRB0900A

NRB1000-1400 A  
NRB0800-1000 E/U

NRB1600-3600 A  
NRB1100-3600 E/U  
NRB0800-3600 N



NRB				0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600
A	A	ALL	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	B	ALL	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780*	2780*	3970	3970	3970	3970	3970	5160	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
	E	mm	3970	3970	3970	5160	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	U	mm	3970	3970	3970	5160	5160	5160	5160	6350	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	5160	5160	5160	6350	6350	6350	6350	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

\* Depth of models without hydronic kit or with pumps. For models with an accumulation tank, the depth is 3970mm

## NRV

free cooling

## R410A

Variable Multi Flow®

VMF

Air/Water chillers for outdoor installation with free cooling  
Scroll compressors, plate heat exchangers and axial fans  
Cooling capacity from 108kW



- MICRO-CHANNEL COIL
- EASY AND QUICK TO INSTALL
- COMPACT MODULE
- RELIABILITY AND MODULARITY

### Features

NRV is made up of independent 108kW modules that can be connected to each other up to a power of 970kW. Every single module is an outdoor chiller to produce chilled water with high efficiency scroll compressors, axial fans, micro-channel coils, system side plate heat exchanger. In the units with desuperheater, there is also the possibility of producing hot water for free.

The base, the structure and the panels are made of galvanised steel treated with rustproof polyester paint.

With NRV, it is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum. Modularity that allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.

These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling functioning (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even complete compressor switch-off with a significant energy saving.

### Versions

NRV\_FA High Efficiency

NRV\_FE High Efficiency Silenced

**Operating range:** Work up to 46°C of outdoor air temperature at full load.

- NRV is made up of a cooling circuit. The careful selection of the components used, the particular configuration and the option of connecting several independent modules and manage them as if they were a single unit allows for maximum yield at full load but even partial loads, thanks to the partialisation steps that increase as the number of connected modules increases, ensuring continuous adaptation to the actual system requirements.
- The electrical panel in every unit and the management logic that allows each module to be operated in synergy with the others ensure continuity even if one or more of the modules freeze up.

**Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.**

- **The modules are easy to install and connect to each other** from a hydraulic standpoint, **thanks to the connections with grooved joints.**
- The chiller module uses aluminium micro-channel coils,

ensuring very high levels of efficiency. These coils allow less refrigerant to be used compared to traditional copper/aluminium coils.

- **NRV is already equipped with a water filter, differential pressure switch and butterfly check valves,** useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.

In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.

- Microprocessor adjustment, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages. Adjustment includes complete management of the alarms and their log.
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set
- Thermoregulation takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced functioning profile. Perfect for night functioning, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **PGD1:** Allows you to control the chiller at a distance.
- **MULTICHILLER\_PCO:** Control, switch-on and switch-off system of the individual chillers when multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **FB1:** Micro-channel coil protection air filter. Built with frame and a composite set in aluminium micro-stitched net with extremely low head losses.

- **GPNYB\_BACK:** kit with 1 anti-intrusion grid for the short side of the unit.
- **GPNYB\_SIDE:** kit with 2 anti-intrusion grids for the long side of the unit.

### Accessories mounted in the factory;

- **DRE:** Plate peak current reduction electronic device.
- **REF:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).

- **KNYB:** Pair of caps with grooved joints assembled on the unit manifold.

- **KREC:** Accessory kit to remote the electric power supply input to the back (see documents).

### COMPATIBILITY with VMF SYSTEM

For further information on system, refer to specific documentation.

NRV	vers.	0550
AER485P1		•
PGD1		•
MULTICHILLER_PCO		•
FB1		•
GPNYB_BACK		•
GPNYB_SIDE	(1)	•

NRV	vers.	0550
Accessories mounted in the factory;		
DRE	*	•
REF	*	•
KNYB		
KREC		

\* Contact the head office  
(1) Kit made up of two grids

## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

<b>Field</b>	<b>Description</b>	<b>12</b>	<b>Condensing Coils</b>	<b>Free Cooling Water Coils</b>
<b>1,2,3</b>	<b>NRV</b>		° Aluminium micro-channel	Copper Aluminium
<b>4,5,6,7</b>	<b>Size</b>		<b>O</b> Aluminium micro-channel with cataphoresis treatment	Copper Aluminium
	0550		<b>R</b> Copper - Copper	Painted
<b>8</b>	<b>Scope of application</b>		<b>S</b> Copper - Thinned	Copper - Copper
	° Mechanical Thermostatic Valve (produced water up to +4?)		<b>V</b> Painted Aluminium Copper	Copper - Thinned
	<b>X</b> Electronic Thermostatic Valve			Painted Aluminium Copper
<b>9</b>	<b>Model</b>	<b>13</b>	<b>Fans</b>	
	<b>F</b> Free cooling		° Standard	
<b>10</b>	<b>Heat recovery</b>		<b>J</b> Inverter	
	° Without Heat Recovery	<b>14</b>	<b>Power supply</b>	
	<b>D</b> With Desuperheater:		° 400V/3/50Hz with magnet circuit breakers	
<b>11</b>	<b>Version</b>	<b>15-16</b>	<b>Integrated hydronic kit</b>	
	<b>A</b> High Efficiency	<b>00</b>	Without hydronic kit	
	<b>E</b> Silenced High Efficiency			

## Technical data

NRV - FA				0550
				400V/3/50Hz
12°C/7°C	Cooling capacity	(1)	kW	105.4
	Input power	(1)	kW	36.6
	EER	(1)		2.88
	Water flow rate	(1)	l/h	18104
	Head drops	(1)	kPa	31
15°C	Cooling capacity	(2)	kW	90.1
	Input power	(2)	kW	3.75
	EER	(2)		24.00
	Water flow rate	(2)	l/h	18104
	Head drops	(2)	kPa	73
NRV - FE				0550
				400V/3/50Hz
12°C/7°C	Cooling capacity	(1)	kW	99.9
	Input power	(1)	kW	38.2
	EER	(1)		2.61
	Water flow rate	(1)	l/h	17164
	Head drops	(1)	kPa	27
15°C	Cooling capacity	(2)	kW	75.0
	Input power	(2)	kW	2.63
	EER	(2)		28.6
	Water flow rate	(2)	l/h	17164
	Head drops	(2)	kPa	66
GENERAL DATA				0550
Electrical data				
Total input current (Chiller mode)		A		65
Total input current (Freecooling mode)	FA	A		8
	FE	A		4
Scroll Compressors				
Compressors / Circuit		n°/n°		2/1
Refrigerant gas		type		R410A
System side heat exchanger - Plates				
Heat exchanger		no.		1
Axial Fans				
Fans		no.		2
Air flow rate in cooling mode	FA	m³/h		28600
	FE	m³/h		22000
Sound data				
Sound power level	A	dB(A)		85
		dB(A)		53
Sound pressure level	E	dB(A)		82
		dB(A)		50

### Data

(1) Evaporator water 12°C/7°C, Outdoor air 35°C; (2) Evaporator water 15°C; Outdoor air 2°C

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with what is requested by Eurovent certification.

**Sound pressure (cold functioning)** Sound pressure measured in free field, 10 m away from the unit external surface (in compliance with UNI EN ISO 3744).

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

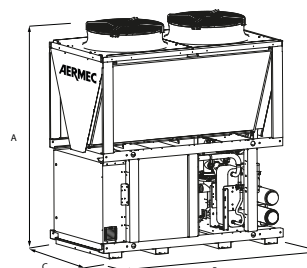
## Dimensions and weights

NRV		Vers.	0550
Height	(mm)	A	all
Width	(mm)	B	all
Depth	(mm)	C	all
Weight*	(kg)	all	1389

\* Weight of the Standard unit without accessories

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

**Aermec S.p.A.**  
Via Roma. 996 - 37040 Bevilacqua (VR) - Italy  
Telephone +39 0442633111 - Telefax +39 044293577  
[www.aermec.com](http://www.aermec.com)



Code: SNRBFUCUY.01 / 1609

# NSM

1402/9603  
free cooling

HFC  
Refrigerant  
R134a

**Air/Water chillers for outdoor installation with free cooling**  
Screw compressors, shell and tube heat exchangers and axial fans  
Cooling capacity from 306÷2028kW



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **ENERGY SAVING**
- **MICRO-CHANNEL COIL**
- **QUICK AND EASY INSTALLATION**
- **NIGHT MODE**

## Features

The NSM free cooling are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.

These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint. These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

## Versions

**NSM\_F** Free cooling

**NSM\_P** Free cooling plus

**Operating range:** Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case

one of the circuits stop.

- The full range uses aluminium micro-channel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper/aluminium coils.
- The possibility of using the electronic thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. IT is supplied as standard from size 5202÷6402 e 8403÷9603, optional for all other sizes.
- Standard differential pressure switch
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- DCPX series
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation
- Complete, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with

the integral proportional logic, based on the water output temperature.

- Night Mode: it is possible to set a silenced operation profile.

Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

## Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** the AERWEB device allows the remote control of a chiller by means of a common PC through Ethernet connection, via a common browser; 4 models available:  
**AERWEB300-6:** Web server for monitoring and controlling maximum 6 RS485 network devices;  
**AERWEB300-18:** Web server for monitoring and controlling maximum 18 RS485 network devices;  
**AERWEB300-6G:** Web server for monitoring and controlling maximum 6 RS485 network devices with integrated GPRS modem;

- **AERWEB300-18G:** Web server for monitoring and controlling maximum 18 RS485 network devices with integrated GPRS modem;
- **PRV3:** Allows you to control the chiller at a distance.
- **MULTICHILLER\_PCO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.

### Accessories mounted in the factory;

- **KRS:** Exchangers electric resistance
- **KRSDES:** Electrical resistor for desuperheater
- **RIFNSM:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **GP:** Anti-intrusion grids.
- **AK: ACOUSTIC KIT.**  
This accessory further reduce the noise.

## Accessories compatibility

Mod.	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
<b>AER485P1</b>		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)
<b>AERWEB300</b>		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<b>PRV3</b>		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<b>MULTICHILLER_PCO</b>		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<b>AVX</b>	(1)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

### Accessories mounted in the factory;

<b>KRS</b>	A	22	22	23	23	23	23	23	23	23	23	23	24	24	24	24	24
	E	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
	U	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
	N	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	23+23
<b>KRS_DES</b>		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<b>RIFNSM</b>		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
<b>GP es. (GP4V)</b>	A	4V	4V	4V	4V	5V	5V	5V	6V	6V	6V	6V	7V	7V	8V	8V	9V
	E	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
	U	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
	N	5V	5V	6V	6V	6V	7V	7V	8V	8V	8V	8V	9V	10V	11V	11V	6V+7V
<b>AK</b>	(2)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
<b>AER485P1</b>		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x3)	-(x3)	-(x3)	-(x3)	-(x3)	-(x3)
<b>AERWEB300</b>		.	.	.	.	.	.	.	.	.	.	.
<b>PRV3</b>		.	.	.	.	.	.	.	.	.	.	.
<b>MULTICHILLER_PCO</b>		.	.	.	.	.	.	.	.	.	.	.
<b>AVX</b>	(1)	.	.	.	.	.	.	.	.	.	.	.

### Accessories mounted in the factory;

<b>KRS</b>	A	24	24	24	24	24	24+23	24+23	24+23	24+23	24+23	24+23
	E	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23		
	U	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23		
	N	23+23	23+23	23+23	23+23	23+23	24+23					
<b>KRS_DES</b>	(1)	.	.	.	.	.	.	.	.	.	.	.
<b>RIFNSM</b>		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
<b>GP es. (GP9V)</b>	A	9V	9V	10V	11V	11V	8V+4V	8V+4V	9V+5V	9V+5V	10V+5V	11V+6V
	E	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	11V+6V		
	U	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	11V+6V		
	N	7V+7V	7V+8V	8V+8V	8V+8V	8V+8V	11V+6V					
<b>AK</b>	(2)	.	.	.	.	.	.	.	.	.	.	.

(1) Accessories to be defined for compatibility

(2) The accessory is only available for the "E/N" silenced versions

(x2) Indicates the amount to order

## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

### Field Description

#### 1,2,3 NSM

#### 4,5,6,7 Sizes

1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 (**dual circuit**)

3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 (**dual circuit**)

6503-6703-6903-7203-8403-9603 (**triple circuit**)

#### 8 Scope of application

° Standard (temperature of water produced up to +4 °C) (3)

**Y** Low temperature (temperature of water produced from +4°C to -6°C) (4)

**X** Electronic thermostatic valve (temperature of water produced up to +4 °C)

**Z** Low temperature electronic thermostatic valve (temperature of water produced from +4°C to -6°C) (4)

#### 9 Model

**F** Free cooling

**P** Free cooling Plus (5)

#### 10 Heat recovery

° Without heat recovery

**D** With desuperheater

#### 11 Version

**A** High efficiency

**E** Silenced high efficiency

**U** Very high efficiency

**N** Silenced very high efficiency

#### 12 Condensing coils

° Aluminium microchannel

**O** Painted aluminium microchannel

**R** Copper - Copper

**S** Copper - Thinned

**V** Epoxy paint (only free cooling coil)

#### Free cooling water coils

Copper Aluminium

Painted Aluminium Copper

Copper Copper

Copper - Thinned

Epoxy paint (only free cooling coil)

#### 13 Fans

° Standard

**J** Inverter

#### 14 Power supply

° 400V/3/50Hz with fuses

**8** 400V/3/50Hz with magnet circuit breakers

**2** 230V/3/50Hz with fuses (6)

**4** 230V/3/50Hz with magnet circuit breakers (6)

**5** 500V/3/50Hz with fuses (7)

**9** 500V/3/50Hz with magnet circuit breakers (7)

#### 15-16 Integrated hydronic kit

**00** Without hydronic kit

**PA** Pumping unit (pump A)

**PB** Pumping unit (pump B)

**PC** Pumping unit (pump C)

**PD** Pumping unit (pump D)

**PE** Pumping unit (pump E)

**PF** Pumping unit (pump F)

**PG** Pumping unit (pump G)

**PH** Pumping unit (pump H)

**PI** Pumping unit (pump I)

**PJ** Pumping unit (pump J)

**FROM** Pumping unit (pump A and reserve pump)

**DB** Pumping unit (pump B and reserve pump)

**DC** Pumping unit (pump C and reserve pump)

**DD** Pumping unit (pump D and reserve pump)

**DE** Pumping unit (pump E and reserve pump)

**DF** Pumping unit (pump F and reserve pump)

**DG** Pumping unit (pump G and reserve pump)

**DH** Pumping unit (pump H and reserve pump)

**DI** Pumping unit (pump I and reserve pump)

**DJ** Pumping unit (pump J and reserve pump)

#### Operation of pumps in parallel

**TF** Double static, pressure pump (pump F)

**TG** Double static, pressure pump (pump G)

**TH** Double static, pressure pump (pump H)

**TI** Double static, pressure pump (pump I)

**TJ** Double static, pressure pump (pump J)

(3) sizes from 5202÷6402 and 8403÷9603 come standard with the electronic thermostatic valve

(4) The Y/Z option is not compatible with the D option

(5) The free cooling plus models can have coils only in options "om" and "O"

(6) 230V/3/50Hz available only for sizes from 1402÷2202

(7) 500V/3/50Hz available only for sizes from 1402÷3202



## Technical data

NSM Free cooling mod.			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	FA	kW	306	350	397	451	505	522	557	601	650	678	726	813	873	954
	FE	kW	320	366	418	473	509	550	569	619	646	675	716	797	852	930
	FU	kW	328	378	429	492	531	569	589	638	668	695	736	825	891	968
	FN	kW	326	377	424	486	525	560	580	626	655	683	723	812	889	961
Input power	FA	kW	103	118	137	158	169	180	194	203	220	235	253	270	296	318
	FE	kW	106	123	138	159	178	183	195	205	220	236	254	271	297	320
	FU	kW	105	121	136	156	173	180	191	202	216	228	242	263	288	311
	FN	kW	104	119	134	154	171	178	189	201	215	228	243	264	283	307
EER	FA	W/W	2.98	2.98	2.90	2.85	2.99	2.90	2.86	2.96	2.95	2.89	2.87	3.02	2.95	3.00
	FE	W/W	3.03	2.97	3.04	2.97	2.85	3.00	2.91	3.01	2.93	2.86	2.82	2.94	2.87	2.90
	FU	W/W	3.12	3.12	3.15	3.16	3.07	3.16	3.08	3.15	3.09	3.04	3.04	3.14	3.09	3.11
	FN	W/W	3.15	3.16	3.16	3.16	3.07	3.14	3.06	3.12	3.05	3.00	2.98	3.08	3.14	3.13
Water flow rate	FA	l/h	52710	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110
	FE	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
	FU	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
	FN	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Total pressure drops	FA	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61
	FE	kPa	33	37	32	37	43	50	54	54	59	64	65	43	49	60
	FU	kPa	35	40	34	40	47	54	58	57	63	68	69	46	54	65
	FN	kPa	35	39	33	39	46	52	56	55	61	66	67	45	54	64
Cooling capacity	FA	kW	348	362	373	382	468	471	476	561	569	573	579	671	678	770
	FE	kW	309	317	390	399	403	476	479	552	557	560	565	643	648	727
	FU	kW	356	370	451	466	473	555	559	642	649	654	662	753	764	854
	FN	kW	365	381	449	466	473	541	546	616	622	628	635	714	791	867
Input power	FA	kW	15	15	15	15	19	19	19	22	22	22	22	26	26	30
	FE	kW	11	11	14	14	14	16	16	19	19	19	19	22	22	25
	FU	kW	15	15	19	19	19	22	22	26	26	26	26	30	30	34
	FN	kW	14	14	16	16	16	19	19	22	22	22	22	25	27	30
EER	FA	W/W	23.18	24.14	24.88	25.47	24.97	25.14	25.42	24.93	25.30	25.48	25.73	25.59	25.83	25.68
	FE	W/W	28.07	28.87	28.36	29.03	29.33	28.88	29.04	28.69	28.91	29.11	29.34	29.25	29.47	29.38
	FU	W/W	23.76	24.67	24.07	24.88	25.26	24.68	24.87	24.45	24.71	24.93	25.21	25.12	25.46	25.31
	FN	W/W	26.56	27.71	27.24	28.22	28.69	28.13	28.36	27.99	28.29	28.54	28.86	28.84	28.77	28.67
Total pressure drops	FA	kPa	66	86	86	76	79	84	95	98	107	117	114	87	100	108
	FE	kPa	57	67	57	68	78	80	86	83	90	98	103	77	88	98
	FU	kPa	60	72	60	74	85	86	92	88	96	104	109	83	96	106
	FN	kPa	52	62	52	64	74	77	82	80	87	94	99	75	83	94

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

Electrical data																
Total input current (Chiller)	(1) FA	A	182	206	231	268	291	311	335	351	378	400	427	451	487	530
	(1) FE	A	177	206	223	261	294	305	326	342	365	389	415	437	474	517
	(1) FU	A	186	212	232	266	297	313	332	353	374	392	413	443	477	523
	(1) FN	A	175	200	218	253	283	297	317	335	357	376	399	427	452	497
Total input current (Free cooling)	(1) FA	A	30	30	30	30	38	38	38	46	46	46	46	53	53	61
	(1) FE	A	16	16	20	20	20	24	24	28	28	28	28	32	32	36
	(1) FU	A	30	30	38	38	38	46	46	53	53	53	53	61	61	68
	(1) FN	A	20	20	24	24	24	28	28	32	32	32	32	36	40	44
Maximum current FLA	(1) FA	A	244	272	299	332	374	396	417	450	475	475	475	531	579	636
	(1) FE	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1) FU	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1) FN	A	252	280	316	349	383	413	434	467	492	492	492	548	605	667
Peak current LRA	(1) FA	A	265	307	350	388	420	467	484	519	529	529	529	662	702	831
	(1) FE	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1) FU	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1) FN	A	274	316	367	405	428	484	501	536	546	546	546	679	727	863
Compressors		type	twin-screw													
Compressors		n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits		n°	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas		type	R134a													
Heat exchanger		type	shell and tube													
Quantity	(1) FA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1) FE	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1) FU	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1) FN	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans		type	axial													
Quantity	FA	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	FE	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	FU	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	FN	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	FA	m³/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
	FE	m³/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
	FU	m³/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
	FN	m³/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
Sound data																
Sound power	FA	dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
	FE	dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
	FU	dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
	FN	dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95
Electric power supply		V/ph/Hz	400V/3/50Hz													

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

Technical data

NSM Free cooling mod.			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	FA	kW	997	1082	1128	1167	1223	1305	1347	1459	1502	1659	1705	1838	2028
	FE	kW	995	1052	1137	1159	1217	1279	1342	1434	1500	1599	1684		
	FU	kW	1031	1095	1181	1209	1266	1326	1387	1491	1554	1667	1753		
	FN	kW	1005	1099	1162	1218	1274	1318	1362	1478					
Input power	FA	kW	346	366	392	422	439	453	472	492	520	557	583	659	704
	FE	kW	340	370	389	418	437	449	461	491	511	569	588		
	FU	kW	332	358	379	405	426	440	454	478	499	550	570		
	FN	kW	333	350	369	393	416	434	451	472					
EER	FA	W/W	2.88	2.96	2.88	2.76	2.79	2.88	2.85	2.97	2.89	2.98	2.92	2.79	2.88
	FE	W/W	2.93	2.84	2.92	2.77	2.79	2.85	2.91	2.92	2.93	2.81	2.86		
	FU	W/W	3.11	3.06	3.12	2.98	2.97	3.01	3.06	3.12	3.12	3.03	3.07		
	FN	W/W	3.02	3.14	3.15	3.10	3.06	3.04	3.02	3.13					
Water flow rate	FA	l/h	171460	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840
	FE	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650		
	FU	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470		
	FN	l/h	172840	188960	199810	209510	219210	226710	234210	254300					
Total pressure drops	FA	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102
	FE	kPa	69	80	74	76	68	72	82	60	69	80	74		
	FU	kPa	74	86	79	83	73	78	88	65	74	86	80		
	FN	kPa	70	71	85	89	75	78	85	64					
Cooling capacity	FA	kW	775	867	872	876	966	1058	1063	1158	1163	1347	1352	1449	1637
	FE	kW	804	809	889	891	967	1044	1120	1130	1207	1216	1295		
	FU	kW	942	952	1043	1048	1135	1222	1308	1326	1414	1431	1523		
	FN	kW	874	1018	1092	1165	1237	1246	1255	1339					
Input power	FA	kW	30	34	34	34	37	41	41	45	45	52	52	56	64
	FE	kW	27	27	30	30	33	36	38	38	41	41	44		
	FU	kW	37	37	41	41	45	49	52	52	56	56	60		
	FN	kW	30	36	38	41	44	44	44	47					
EER	FA	W/W	25.83	25.71	25.85	25.96	25.77	25.66	25.77	25.75	25.85	25.66	25.75	25.78	25.68
	FE	W/W	29.24	29.44	29.38	29.44	29.31	29.20	29.09	29.35	29.26	29.48	29.44		
	FU	W/W	25.12	25.39	25.30	25.40	25.22	25.07	24.92	25.27	25.14	25.45	25.39		
	FN	W/W	28.91	28.48	28.37	28.24	28.11	28.33	28.52	28.65					
Total pressure drops	FA	kPa	117	130	141	131	134	146	155	108	117	130	141	134	155
	FE	kPa	105	119	113	117	107	111	120	98	105	119	113		
	FU	kPa	113	129	122	128	116	119	128	106	113	130	123		
	FN	kPa	102	101	114	118	104	109	118	94					

Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

Electrical data																
Total input current	(1)	FA	A	581	614	655	704	733	761	796	821	872	945	986	1100	1198
	(1)	FE	A	555	601	632	678	708	732	755	804	832	924	945		
	(1)	FU	A	564	605	639	682	718	746	774	812	846	926	954		
Total input current (Free cooling)	(1)	FN	A	544	570	600	639	677	708	740	771					
	(1)	FA	A	61	68	68	68	76	84	84	91	91	106	106	114	129
	(1)	FE	A	40	40	44	44	48	52	56	56	60	60	64		
	(1)	FU	A	76	76	84	84	91	99	106	106	114	114	122		
Maximum current FLA	(1)	FN	A	44	52	56	60	64	64	64	68					
	(1)	FA	A	684	731	770	813	865	913	947	981	1029	1124	1163	1300	1419
	(1)	FE	A	701	740	793	836	888	930	973	998	1054	1132	1180		
	(1)	FU	A	701	740	793	836	888	930	973	998	1054	1132	1180		
Peak current LRA	(1)	FN	A	715	771	819	870	922	956	990	1023					
	(1)	FA	A	858	931	953	1108	1164	1290	1287	1069	1096	1200	1223	1480	1603
	(1)	FE	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FU	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FN	A	890	971	1002	1165	1221	1333	1330	1112					
	Compressors			type			twin-screw									
Compressors			n°	2	2	2	2	2	2	3	3	3	3	3	3	3
Circuits			n°	2	2	2	2	2	2	3	3	3	3	3	3	3
Refrigerant gas			type			R134a										
Heat exchanger			type			shell and tube										
Quantity	(1)	FA	n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	(1)	FE	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FU	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FN	n°	1	2	2	2	2	2	2	2					
Standard Fans			type			axial										
Quantity		FA	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
		FE	no.	20	20	22	22	24	26	28	28	30	30	32		
		FU	no.	20	20	22	22	24	26	28	28	30	30	32		
		FN	no.	22	26	28	30	32	32	32	34					
Air flow rate		FA	m <sup>3</sup> /h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000	493000
		FE	m <sup>3</sup> /h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400		
		FU	m <sup>3</sup> /h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000		
		FN	m <sup>3</sup> /h	246400	291200	313600	336000	358400	358400	358400	380800					
Sound data																
Sound power		FA	dB(A)	101	102	102	102	102	102	102	103	103	103	103	104	104
		FE	dB(A)	95	95	95	96	96	96	96	96	96	96	97		
		FU	dB(A)	102	102	102	102	103	103	103	103	104	104	104		
		FN	dB(A)	95	96	96	97	97	97	97	97					
Electric power supply			V/ph/Hz			400V/3/50Hz										

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power**Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

## Technical data

NSM Free cooling PLUS mod.			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	PA	kW	306	349	395	447	502	519	553	597	645	674	722	808	865	947
	PE	kW	317	363	414	470	504	545	564	614	641	670	711	791	843	921
	PU	kW	327	377	428	489	528	565	586	635	664	692	732	820	885	962
	PN	kW	325	375	423	484	522	557	577	623	652	680	720	807	883	955
Input power	PA	kW	104	119	138	160	171	183	197	205	223	238	257	273	299	322
	PE	kW	107	125	139	161	181	185	198	208	223	239	258	275	301	324
	PU	kW	106	123	138	157	175	182	193	204	218	231	246	266	291	315
	PN	kW	104	120	136	155	173	180	192	203	217	231	246	267	286	310
EER	PA	W/W	2.95	2.94	2.86	2.79	2.94	2.84	2.81	2.91	2.89	2.83	2.81	2.96	2.89	2.94
	PE	W/W	2.97	2.91	2.99	2.91	2.79	2.94	2.85	2.96	2.87	2.80	2.76	2.88	2.80	2.84
	PU	W/W	3.08	3.07	3.11	3.10	3.02	3.11	3.03	3.10	3.04	2.99	2.98	3.08	3.04	3.06
	PN	W/W	3.11	3.12	3.12	3.11	3.02	3.09	3.01	3.07	3.00	2.94	2.92	3.02	3.09	3.08
Water flow rate	PA	l/h	52600	60090	67940	76940	86360	89280	95050	102710	111010	115990	124160	138940	148770	162860
	PE	l/h	54470	62460	71290	80760	86710	93810	97020	105580	110230	115210	122270	135990	145080	158470
	PU	l/h	56230	64790	73540	84070	90740	97250	100720	109150	114220	118970	125990	141090	152170	165430
	PN	l/h	55920	64530	72740	83170	89790	95770	99190	107170	112100	116890	123890	138810	151850	164280
Total pressure drops	PA	kPa	45	59	53	35	44	47	54	63	66	73	64	43	49	60
	PE	kPa	33	37	32	37	42	50	53	53	58	63	64	42	48	59
	PU	kPa	35	39	34	40	46	53	57	57	62	67	68	46	53	64
	PN	kPa	35	39	33	39	45	52	55	55	60	65	66	44	53	64
Cooling capacity	PA	kW	372	388	400	409	502	505	511	601	610	614	620	719	725	825
	PE	kW	329	339	416	426	430	508	511	589	594	598	602	686	691	775
	PU	kW	381	397	483	500	507	595	600	688	695	702	709	808	818	915
	PN	kW	388	406	478	497	505	578	582	656	664	670	678	762	844	925
Input power	PA	kW	15	15	15	15	19	19	19	23	23	23	23	27	27	30
	PE	kW	11	11	14	14	14	17	17	20	20	20	20	22	22	25
	PU	kW	15	15	19	19	19	23	23	27	27	27	27	30	30	34
	PN	kW	14	14	17	17	17	20	20	22	22	22	22	25	28	31
EER	PA	W/W	24.41	25.48	26.27	26.86	26.36	26.53	26.81	26.31	26.69	26.88	27.12	26.98	27.20	27.07
	PE	W/W	29.48	30.36	29.81	30.53	30.82	30.37	30.54	30.17	30.41	30.62	30.84	30.75	30.95	30.87
	PU	W/W	25.04	26.04	25.39	26.26	26.65	26.05	26.25	25.80	26.09	26.32	26.61	26.51	26.85	26.71
	PN	W/W	27.79	29.12	28.57	29.68	30.18	29.58	29.83	29.42	29.75	30.03	30.37	30.35	30.26	30.16
Total pressure drops	PA	kPa	66	86	85	75	78	83	94	97	106	115	112	86	98	106
	PE	kPa	56	66	56	67	77	79	84	82	89	97	102	76	86	96
	PU	kPa	59	71	60	73	84	85	91	87	95	103	108	82	95	104
	PN	kPa	52	61	52	63	73	76	81	79	86	94	98	74	82	93

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

Electrical data																	
Total input current (Chiller)	(1)	PA	A	184	208	233	271	294	315	339	355	382	405	433	456	492	536
	(1)	PE	A	179	208	225	263	298	308	329	345	369	393	421	443	480	523
	(1)	PU	A	187	213	234	269	300	316	335	356	377	396	418	447	482	528
	(1)	PN	A	176	201	220	255	286	300	320	338	360	381	404	431	457	501
Total input current (Free cooling)	(1)	PA	A	31	31	31	31	38	38	38	46	46	46	46	54	54	61
	(1)	PE	A	16	16	20	20	20	24	24	28	28	28	28	32	32	36
	(1)	PU	A	31	31	38	38	38	46	46	54	54	54	54	61	61	69
	(1)	PN	A	20	20	24	24	24	28	28	32	32	32	32	36	40	44
Maximum current FLA	(1)	PA	A	244	272	299	332	374	396	417	450	475	475	475	531	579	636
	(1)	PE	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1)	PU	A	244	272	308	341	374	404	425	459	483	483	483	540	588	644
	(1)	PN	A	252	280	316	349	383	413	434	467	492	492	492	548	605	667
Peak current LRA	(1)	PA	A	265	307	350	388	420	467	484	519	529	529	529	662	702	831
	(1)	PE	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1)	PU	A	265	307	359	397	420	475	492	528	538	538	538	670	710	840
	(1)	PN	A	274	316	367	405	428	484	501	536	546	546	546	679	727	863
Compressors			type			twin-screw											
Compressors			n°			2	2	2	2	2	2	2	2	2	2	2	2
Circuits			n°			2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas			type			R134a											
Heat exchanger			type			shell and tube											
Quantity	(1)	PA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	PE	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	PU	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	PN	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans			type			axial											
Quantity		PA	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
		PE	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		PU	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		PN	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate		PA	m <sup>3</sup> /h	109600	109600	109600	109600	137000	137000	137000	164400	164400	164400	164400	191800	191800	219200
		PE	m <sup>3</sup> /h	85600	85600	107000	107000	107000	128400	128400	149800	149800	149800	149800	171200	171200	192600
		PU	m <sup>3</sup> /h	109600	109600	137000	137000	137000	164400	164400	191800	191800	191800	191800	219200	219200	246600
		PN	m <sup>3</sup> /h	107000	107000	128400	128400	128400	149800	149800	171200	171200	171200	171200	192600	214000	235400
Sound data																	
Sound power		PA	dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
		PE	dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
		PU	dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
		PN	dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95
Electric power supply			V/ph/Hz			400V/3/50Hz											

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

Technical data

NSM Free cooling PLUS mod.			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	FA	kW	989	1074	1119	1156	1213	1295	1336	1448	1490	1647	1692	1823	2013
	FE	kW	988	1042	1127	1148	1207	1269	1332	1422	1488	1583	1668		
	FU	kW	1025	1088	1174	1201	1258	1319	1379	1482	1545	1656	1742		
	FN	kW	999	1093	1156	1212	1268	1311	1354	1470					
Input power	FA	kW	351	370	397	428	444	458	478	498	527	564	591	667	712
	FE	kW	344	375	395	424	442	454	467	498	517	577	597		
	FU	kW	335	362	383	410	431	444	458	483	504	556	577		
	FN	kW	337	353	373	396	420	438	455	477					
EER	FA	W/W	2.82	2.90	2.82	2.70	2.73	2.83	2.79	2.91	2.83	2.92	2.86	2.73	2.83
	FE	W/W	2.87	2.78	2.86	2.71	2.73	2.79	2.85	2.86	2.88	2.74	2.80		
	FU	W/W	3.06	3.00	3.06	2.93	2.92	2.97	3.01	3.07	3.07	2.98	3.02		
	FN	W/W	2.97	3.09	3.10	3.06	3.02	3.00	2.97	3.08					
Water flow rate	FA	l/h	170060	184760	192490	198900	208590	222770	229830	249020	256220	283280	291010	313530	346260
	FE	l/h	169860	179210	193870	197450	207550	218320	229100	244540	255930	272310	286960		
	FU	l/h	176350	187150	201920	206550	216360	226790	237230	254900	265810	284790	299560		
	FN	l/h	171790	187940	198770	208410	218050	225490	232920	252840					
Total pressure drops	FA	kPa	65	80	87	74	81	94	100	60	65	80	87	81	100
	FE	kPa	68	78	72	75	67	71	81	59	68	78	72		
	FU	kPa	73	85	78	82	72	77	87	64	73	85	79		
	FN	kPa	70	71	84	88	74	77	85	64					
Cooling capacity	FA	kW	829	929	933	936	1034	1133	1137	1240	1244	1442	1447	1551	1752
	FE	kW	857	862	947	949	1031	1113	1194	1204	1287	1295	1380		
	FU	kW	1010	1020	1119	1123	1216	1310	1402	1422	1516	1533	1632		
	FN	kW	933	1086	1165	1242	1319	1330	1339	1429					
Input power	FA	kW	30	34	34	34	38	42	42	46	46	53	53	57	65
	FE	kW	28	28	31	31	33	36	39	39	42	42	45		
	FU	kW	38	38	42	42	46	50	53	53	57	57	61		
	FN	kW	31	36	39	42	45	45	45	47					
EER	FA	W/W	27.21	27.09	27.22	27.32	27.15	27.05	27.13	27.22	27.04	27.13	27.15	27.07	
	FE	W/W	30.74	30.92	30.87	30.92	30.81	30.70	30.59	30.84	30.76	30.95	30.92		
	FU	W/W	26.51	26.78	26.70	26.80	26.62	26.46	26.30	26.66	26.54	26.84	26.78		
	FN	W/W	30.41	29.96	29.84	29.69	29.55	29.79	30.01	30.14					
Total pressure drops	FA	kPa	116	128	139	129	132	144	153	106	116	128	139	132	153
	FE	kPa	103	117	111	115	105	109	118	96	103	117	111		
	FU	kPa	111	128	121	126	114	118	127	104	111	128	121		
	FN	kPa	101	100	113	117	103	108	117	93					

Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

Cooling in freecooling (100%)

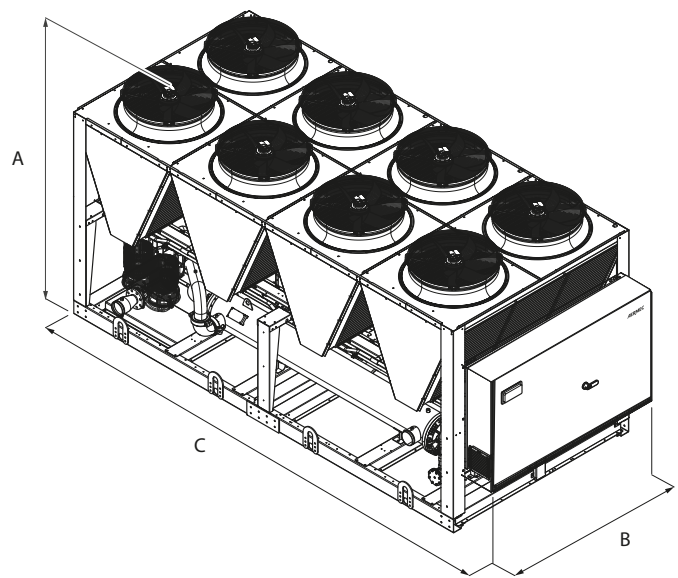
Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C

Electrical data																
Total input current	(1)	FA	A	588	621	662	713	741	769	805	830	882	956	998	1112	1211
	(1)	FE	A	561	609	640	687	717	740	763	814	842	937	957		
	(1)	FU	A	569	611	645	688	725	752	780	819	854	936	963		
	(1)	FN	A	550	575	606	644	682	714	746	778					
Total input current (Free cooling)	(1)	FA	A	61	69	69	69	77	84	84	92	92	107	107	115	131
	(1)	FE	A	40	40	44	44	48	52	56	56	60	60	64		
	(1)	FU	A	77	77	84	84	92	100	107	107	115	115	123		
	(1)	FN	A	44	52	56	60	64	64	64	68					
Maximum current FLA	(1)	FA	A	684	731	770	813	865	913	947	981	1029	1124	1163	1300	1419
	(1)	FE	A	701	740	793	836	888	930	973	998	1054	1132	1180		
	(1)	FU	A	701	740	793	836	888	930	973	998	1054	1132	1180		
	(1)	FN	A	715	771	819	870	922	956	990	1023					
Peak current LRA	(1)	FA	A	858	931	953	1108	1164	1290	1287	1069	1096	1200	1223	1480	1603
	(1)	FE	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FU	A	875	939	976	1131	1187	1307	1313	1086	1122	1209	1240		
	(1)	FN	A	890	971	1002	1165	1221	1333	1330	1112					
Compressors			type		twin-screw											
Compressors			n°		2	2	2	2	2	2	3	3	3	3	3	3
Circuits			n°		2	2	2	2	2	2	3	3	3	3	3	3
Refrigerant gas			type		R134a											
Heat exchanger			type		shell and tube											
Quantity	(1)	FA	n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	(1)	FE	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FU	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	FN	n°	1	2	2	2	2	2	2	2					
Standard Fans			type		axial											
Quantity		FA	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
		FE	no.	20	20	22	22	24	26	28	28	30	30	32		
		FU	no.	20	20	22	22	24	26	28	28	30	30	32		
		FN	no.	22	26	28	30	32	32	32	34					
Air flow rate		FA	m <sup>3</sup> /h	219200	246600	246600	246600	274000	301400	301400	328800	328800	383600	383600	411000	465800
		FE	m <sup>3</sup> /h	214000	214000	235400	235400	256800	278200	299600	299600	321000	321000	342400		
		FU	m <sup>3</sup> /h	274000	274000	301400	301400	328800	356200	383600	383600	411000	411000	438400		
		FN	m <sup>3</sup> /h	235400	278200	299600	321000	342400	342400	342400	363800					
Sound data																
Sound power		FA	dB(A)	101	102	102	102	102	102	102	103	103	103	103	104	104
		FE	dB(A)	95	95	95	96	96	96	96	96	96	96	97		
		FU	dB(A)	102	102	102	102	103	103	103	103	104	104	104		
		FN	dB(A)	95	96	96	97	97	97	97	97					
Electric power supply			V/ph/Hz		400V/3/50Hz											

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power**Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)



Mod. NSM Free cooling and Free cooling plus											
			Vers	1402	1602	1802	2002	2202	2352	2502	2652
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	5160	5160	5160	5160	6350	6350	6350	7140
			E	5160	5160	6350	6350	6350	7140	7140	8330
			U	5160	5160	6350	6350	6350	7140	7140	8330
			N	6350	6350	7140	7140	7140	8330	8330	9520
			Vers	2802	3002	3202	3402	3602	3902	4202	4502
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	7140	7140	7140	8330	8330	9520	9520	10710
			E	8330	8330	8330	9520	9520	10710	11900	11900
			U	8330	8330	8330	9520	9520	10710	11900	11900
			N	9520	9520	9520	10710	11900	13090	13090	15470
			Vers	4802	5202	5602	6002	6402	6503	6703	6903
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	10710	10710	11900	13090	13090	14280	14280	16660
			E	13090	13090	14280	15470	16660	16660	17850	17850
			U	13090	13090	14280	15470	16660	16660	17850	17850
			N	16660	17850	19040	19040	19040	20230		
			Vers	7203	8403	9603					
Height	(mm)	A	All	2450	2450	2450					
Width	(mm)	B	All	2200	2200	2200					
Length	(mm)	C	A	16660	17850	20230					
			E	19040							
			U	19040							
			N								

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

Aermec S.p.A.  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy  
Telephone +39 0442633111 - Telefax +39 044293577  
www.aermec.com

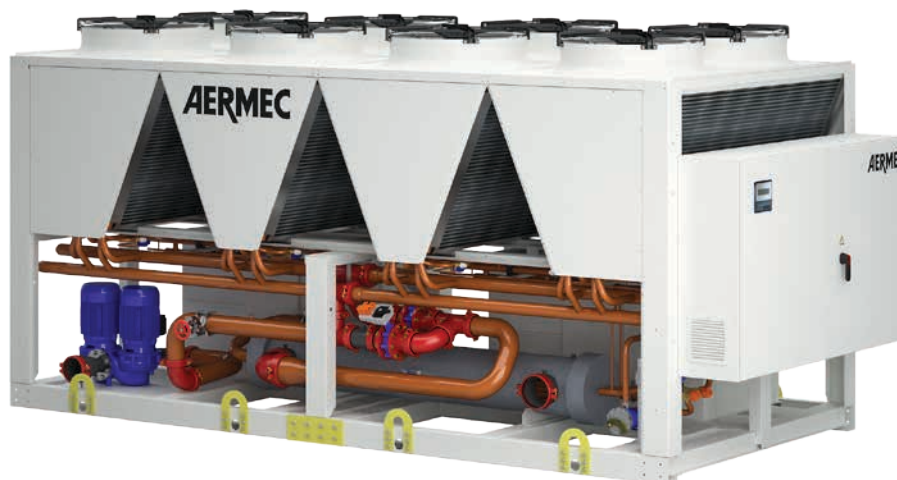


# NSM

1402/9603  
glycol free

HFC  
Refrigerant  
R134a

Air/Water chillers for outdoor installation with free cooling glycol free  
Screw compressors, shell and tube heat exchangers and axial fans  
Cooling capacity from 306÷2028kW



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **ENERGY SAVING**
- **MICRO-CHANNEL COIL**
- **QUICK AND EASY INSTALLATION**
- **NIGHT MODE**

## Features

The NSM free cooling glycol free designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities. These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

These chillers are provided with a "free cooling" coil and an intermediate plate heat exchanger, in order to accomplish a double set of independent, a coil circuit / a plant circuit.

These chillers are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

## Versions

**NSM\_B** Free cooling glycol free

**NSM\_G** Free cooling plus glycol free

**Operating range:** Work up to 50°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software/technical documentation.

- Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stop.

- The full range uses aluminium micro-channel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper/aluminium coils.
- The possibility of using the electronic thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit. IT is supplied as standard from size 5202÷6402 e 8403÷9603, optional for all other sizes.
- Intermediate plate heat exchanger, it permits to obtain a double circuit set:  
**Coil circuit with glycol**, in order to protect the component from freezing.  
**Primary plant circuit, without glycol.**
- Standard differential pressure switch
- DCPX series
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation
- Complete, with keyboard and LCD display, for easy consultation and intervention on the unit via a menu available in several languages.
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water

output temperature.

- Night Mode: it is possible to set a silenced operation profile.  
Perfect for night operation, since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

## Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** the AERWEB device allows the remote control of a chiller by means of a common PC through Ethernet connection, via a common browser; 4 models available:  
**AERWEB300-6:** Web server for monitoring and controlling maximum 6 RS485 network devices;  
**AERWEB300-18:** Web server for monitoring and controlling maximum 18 RS485 network devices;  
**AERWEB300-6G:** Web server for monitoring and controlling maximum 6 RS485 network devices with integrated GPRS modem;  
**AERWEB300-18G:** Web server for monitoring and controlling maximum 18 RS485 network

- devices with integrated GPRS modem;
- **PRV3:** Allows you to control the chiller at a distance.
- **MULTICHILLER\_PCO:** Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
- **AVX:** Spring anti-vibration mounts.

### Must be ordered in conjunction with options KRS

- **RIFNSM:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **GP:** Anti-intrusion grids.
- **AK: ACOUSTIC KIT.** This accessory further reduce the noise.

### Accessories mounted in the factory;

- **KRS: (compulsory accessory)** Exchangers electric resistance
- **KDI:** double thickness evaporator insulation. Provides stand-still protection down to -20°C.

## Accessories compatibility

Mod.	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)
AERWEB300		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_PCO		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AVX	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

### Accessories mounted in the factory;

KRS	(2)	A	22	22	23	23	23	23	23	23	23	23	24	24	24	24	24	
		E	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
		U	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	24
		N	23	23	23	23	23	23	23	23	23	23	23	24	24	24	24	23+23
KDI	(1)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
RIFNSM			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP es. (GP4V)		A	4V	4V	4V	4V	5V	5V	5V	6V	6V	6V	6V	7V	7V	8V	8V	9V
		E	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
		U	4V	4V	5V	5V	5V	6V	6V	7V	7V	7V	7V	8V	8V	9V	10V	10V
		N	5V	5V	6V	6V	6V	7V	7V	8V	8V	8V	8V	9V	10V	11V	11V	6V+7V
AK	(3)		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

		4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x3)	-(x3)	-(x3)	-(x3)	-(x3)	-(x3)
AERWEB300		*	*	*	*	*	*	*	*	*	*	*
PRV3		*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_PCO		*	*	*	*	*	*	*	*	*	*	*
AVX	(1)	*	*	*	*	*	*	*	*	*	*	*

### Accessories mounted in the factory;

KRS	(2)	A	24	24	24	24	24	24+23	24+23	24+23	24+23	24+23	24+23
		E	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23	24+23	24+23
		U	24	24	23+23	23+23	23+23	24+23	24+23	24+23	24+23	24+23	24+23
		N	23+23	23+23	23+23	23+23	23+23	24+23	24+23	24+23	24+23	24+23	24+23
KDI	(1)		*	*	*	*	*	*	*	*	*	*	*
RIFNSM			4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
GP es. (GP9V)		A	9V	9V	10V	11V	11V	8V+4V	8V+4V	9V+5V	9V+5V	10V+5V	11V+6V
		E	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	10V+5V	11V+6V	11V+6V
		U	11V	11V	6V+6V	6V+7V	7V+7V	9V+5V	10V+5V	10V+5V	10V+5V	11V+6V	11V+6V
		N	7V+7V	7V+8V	8V+8V	8V+8V	8V+8V	11V+6V	11V+6V	11V+6V	11V+6V	11V+6V	11V+6V
AK	(3)		*	*	*	*	*	*	*	*	*	*	*

(1) Accessories to be defined for compatibility

(2) Compulsory accessory

(3) The accessory is only available for the "E/N" silenced versions

(x2) Indicates the amount to order



## Choosing the unit

By appropriately combining the variety of options available, every model can be configured in order to meet all specific system requirements.

Field	Description
<b>1,2,3</b>	<b>NSM</b>
<b>4,5,6,7</b>	<b>Sizes</b> 1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 ( <b>dual circuit</b> ) 3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 ( <b>dual circuit</b> ) 6503-6703-6903-7203-8403-9603 ( <b>triple circuit</b> )
<b>8</b>	<b>Scope of application</b> ° Standard (temperature of water produced up to +4 °C) (3) <b>Y</b> Low temperature (temperature of water produced from +4°C to -6°C) (4) <b>X</b> Electronic thermostatic valve (temperature of water produced up to +4 °C) <b>Z</b> Low temperature electronic thermostatic valve (temperature of water produced from +4°C to -6°C) (4)
<b>9</b>	<b>Model</b> <b>B</b> Free cooling glycol free <b>G</b> Free cooling Plus glycol free (5)
<b>10</b>	<b>Heat recovery</b> ° Without heat recovery
<b>11</b>	<b>Version</b> <b>A</b> High efficiency <b>E</b> Silenced high efficiency <b>U</b> Very high efficiency <b>N</b> Silenced very high efficiency
<b>12</b>	<b>Condensing coils</b> ° Aluminium microchannel <b>O</b> Painted aluminium microchannel <b>R</b> Copper - Copper <b>S</b> Copper - Thinned <b>V</b> Epoxy paint (only free cooling coil)
<b>13</b>	<b>Fans</b> ° Standard <b>M</b> Increased <b>J</b> Inverter
<b>14</b>	<b>Power supply</b> ° 400V/3/50Hz with fuses <b>8</b> 400V/3/50Hz with magnet circuit breakers <b>2</b> 230V/3/50Hz with fuses (6) <b>4</b> 230V/3/50Hz with magnet circuit breakers (6) <b>5</b> 500V/3/50Hz with fuses (7) <b>9</b> 500V/3/50Hz with magnet circuit breakers (7)
<b>15-16</b>	<b>Integrated hydronic kit</b> <b>00</b> Without hydronic kit

### Free cooling water coils

Copper Aluminium  
Painted Aluminium Copper  
Copper Copper  
Copper - Thinned  
Epoxy paint (only free cooling coil)

(3) sizes from 5202÷6402 and 8403÷9603 come standard with the electronic thermostatic valve

(4) The Y/Z option is not compatible with the D option

(5) The free cooling plus models can have coils only in options "om" and "O"

(6) 230V/3/50Hz available only for sizes from 1402÷2202

(7) 500V/3/50Hz available only for sizes from 1402÷3202

## Technical data

Mod NSM Free cooling glycol free			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	BA	kW	306	350	397	451	505	522	557	601	650	678	726	813	873	954
	BE	kW	320	366	418	473	509	550	569	619	646	675	716	797	852	930
	BU	kW	328	378	429	492	531	569	589	638	668	695	736	825	891	968
	BN	kW	326	377	424	486	525	560	580	626	655	683	723	812	889	961
Input power	BA	kW	103	118	137	158	169	180	194	203	220	235	253	270	296	318
	BE	kW	106	123	138	159	178	183	195	205	220	236	254	271	297	320
	BU	kW	105	121	136	156	173	180	191	202	216	228	242	263	288	311
	BN	kW	104	119	134	154	171	178	189	201	215	228	243	264	283	307
EER	BA	W/W	2,98	2,98	2,90	2,85	2,99	2,90	2,86	2,96	2,95	2,89	2,87	3,02	2,95	3,00
	BE	W/W	3,03	2,97	3,04	2,97	2,85	3,00	2,91	3,01	2,93	2,86	2,82	2,94	2,87	2,90
	BU	W/W	3,12	3,12	3,15	3,16	3,07	3,16	3,08	3,15	3,09	3,04	3,04	3,14	3,09	3,11
	BN	W/W	3,15	3,16	3,16	3,16	3,07	3,14	3,06	3,12	3,05	3,00	2,98	3,08	3,14	3,13
Water flow rate	BA	l/h	52710	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110
	BE	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
	BU	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
	BN	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Total pressure drops	BA	kPa	73	94	100	72	90	96	108	107	117	100	94	81	93	112
	BE	kPa	64	76	84	78	90	88	94	100	109	91	94	80	92	110
	BU	kPa	67	81	88	83	96	93	99	106	88	95	87	85	99	117
	BN	kPa	54	65	67	83	96	92	98	79	86	93	86	84	100	106
Cooling capacity	BA	kW	263	271	278	289	355	358	362	436	440	461	465	541	546	602
	BE	kW	244	251	302	316	321	385	388	436	440	459	463	527	532	585
	BU	kW	271	279	332	360	363	432	435	488	511	516	531	591	597	652
	BN	kW	288	304	358	368	374	428	432	494	499	503	518	578	630	690
Input power	BA	kW	18	18	18	18	25	25	25	32	32	32	32	37	37	41
	BE	kW	15	15	20	20	20	26	26	30	30	30	30	33	33	36
	BU	kW	19	19	25	27	27	32	32	37	37	37	37	41	41	45
	BN	kW	18	20	26	26	27	30	30	33	33	33	33	39	42	45
EER	BA	W/W	14,37	14,80	15,18	15,73	14,40	14,50	14,69	13,59	13,72	14,26	14,39	14,58	14,71	14,70
	BE	W/W	16,02	16,49	15,46	16,06	16,35	14,74	14,88	14,70	14,85	15,31	15,46	16,02	16,16	16,39
	BU	W/W	14,11	14,53	13,53	13,39	13,52	13,46	13,55	13,31	13,83	13,96	14,32	14,46	14,58	14,59
	BN	W/W	15,97	15,45	13,81	14,22	14,07	14,42	14,56	15,05	15,20	15,34	15,73	14,70	14,95	15,34
Total pressure drops	BA	kPa	73	94	100	72	90	96	108	107	117	100	94	81	93	112
	BE	kPa	64	76	84	78	90	88	94	100	109	91	94	80	92	110
	BU	kPa	67	81	88	83	96	93	99	106	88	95	87	85	99	117
	BN	kPa	54	65	67	83	96	92	98	79	86	93	86	84	100	106

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling glycol free (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C;  
Coil circuit glycol 30%; Plant circuit glycol 0%

Electrical data																	
Total input current (Chiller)	(1)	BA	A	182	206	231	268	291	311	335	351	378	400	427	451	487	530
	(1)	BE	A	177	206	223	261	294	305	326	342	365	389	415	437	474	517
	(1)	BU	A	186	212	232	266	297	313	332	353	374	392	413	443	477	523
	(1)	BN	A	175	200	218	253	283	297	317	335	357	376	399	427	452	497
Total input current (Free cooling glycol free)	(1)	BA	A	36	36	36	37	48	48	48	62	62	62	62	71	71	79
	(1)	BE	A	23	23	30	30	30	40	40	45	45	46	46	50	50	54
	(1)	BU	A	38	38	48	52	52	62	62	71	71	71	71	79	79	87
	(1)	BN	A	27	30	40	40	41	45	45	50	50	50	50	60	64	68
Maximum current FLA	(1)	BA	A	250	278	305	339	384	406	427	466	491	492	492	550	598	654
	(1)	BE	A	251	279	317	351	384	420	442	476	501	501	501	558	606	663
	(1)	BU	A	251	279	317	355	388	420	442	476	501	501	502	558	606	663
	(1)	BN	A	260	290	332	365	400	430	451	485	510	510	510	572	629	691
Peak current LRA	(1)	BA	A	271	313	356	394	430	477	494	536	546	546	546	680	720	850
	(1)	BE	A	273	314	369	407	430	492	509	545	555	556	556	689	729	858
	(1)	BU	A	273	314	369	410	434	492	509	545	556	556	556	689	729	858
	(1)	BN	A	281	326	383	421	445	501	518	555	565	565	565	703	751	887
Compressors		type		twin-screw													
Compressors		n°		2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits		n°		2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas		type		R134a													
Heat exchanger		type		shell and tube													
Quantity	(1)	BA	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	BE	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	BU	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1)	BN	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans		type		axial													
Quantity		BA	n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
		BE	n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		BU	n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
		BN	n°	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate		BA	m³/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
		BE	m³/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
		BU	m³/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
		BN	m³/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
Sound data																	
Sound power		BA	dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
		BE	dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
		BU	dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
		BN	dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95
Electric power supply		V/ph/Hz		400V/3/50Hz													

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

## Technical data

Mod NSM Free cooling glycol free			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	BA	kW	997	1082	1128	1167	1223	1305	1347	1459	1502	1659	1705	1838	2028
	BE	kW	995	1052	1137	1159	1217	1279	1342	1434	1500	1599	1684		
	BU	kW	1031	1095	1181	1209	1266	1326	1387	1491	1554	1667	1753		
	BN	kW	1005	1099	1162	1218	1274	1318	1362	1478					
Input power	BA	kW	346	366	392	422	439	453	472	492	520	557	583	659	704
	BE	kW	340	370	389	418	437	449	461	491	511	569	588		
	BU	kW	332	358	379	405	426	440	454	478	499	550	570		
	BN	kW	333	350	369	393	416	434	451	472					
EER	BA	W/W	2,88	2,96	2,88	2,76	2,79	2,88	2,85	2,97	2,89	2,98	2,92	2,79	2,88
	BE	W/W	2,93	2,84	2,92	2,77	2,79	2,85	2,91	2,92	2,93	2,81	2,86		
	BU	W/W	3,11	3,06	3,12	2,98	2,97	3,01	3,06	3,12	3,12	3,03	3,07		
	BN	W/W	3,02	3,14	3,15	3,10	3,06	3,04	3,02	3,13					
Water flow rate	BA	l/h	171460	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840
	BE	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650		
	BU	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470		
	BN	l/h	172840	188960	199810	209510	219210	226710	234210	254300					
Total pressure drops	BA	kPa	122	132	143	116	109	125	133	112	127	132	143	108	135
	BE	kPa	125	128	130	135	84	115	112	110	121	121	130		
	BU	kPa	119	137	138	145	104	124	113	117	119	137	138		
	BN	kPa	116	103	104	109	72	78	81	105					
Cooling capacity	BA	kW	606	682	684	687	746	800	803	894	899	1043	1047	1133	1260
	BE	kW	647	665	718	720	784	836	891	904	966	995	1048		
	BU	kW	739	746	804	806	890	942	995	1015	1102	1130	1188		
	BN	kW	697	817	864	930	987	1002	1007	1064					
Input power	BA	kW	41	45	45	45	60	64	64	59	59	70	70	77	85
	BE	kW	42	42	45	45	52	56	59	55	62	64	67		
	BU	kW	52	52	56	56	66	69	73	72	79	81	85		
	BN	kW	45	56	59	62	66	66	66	72					
EER	BA	W/W	14,82	15,19	15,23	15,31	12,45	12,56	12,60	15,08	15,17	15,00	15,04	14,72	14,87
	BE	W/W	15,27	15,66	15,88	15,91	15,02	15,00	15,01	16,33	15,57	15,47	15,62		
	BU	W/W	14,09	14,22	14,29	14,33	13,55	13,56	13,57	14,19	13,90	13,90	13,96		
	BN	W/W	15,49	14,64	14,56	14,89	15,05	15,27	15,34	14,87					
Total pressure drops	BA	kPa	122	132	143	116	109	125	133	112	127	132	143	108	135
	BE	kPa	125	128	130	135	84	115	112	110	121	121	130		
	BU	kPa	119	137	138	145	104	124	113	117	119	137	138		
	BN	kPa	116	103	104	109	72	78	81	105					

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling glycol free (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C;  
Coil circuit glycol 30%; Plant circuit glycol 0%

Electrical data															
Total input current (Chiller)	(1)	BA	A	581	614	655	704	733	761	796	821	872	945	986	1100
	(1)	BE	A	555	601	632	678	708	732	755	804	832	924	945	
	(1)	BU	A	564	605	639	682	718	746	774	812	846	926	954	
	(1)	BN	A	544	570	600	639	677	708	740	771				
Total input current (Free cooling glycol free)	(1)	BA	A	79	87	87	87	114	121	121	116	116	135	135	149
	(1)	BE	A	64	64	68	68	80	86	91	84	94	98	102	
	(1)	BU	A	100	100	108	108	126	134	141	139	152	156	163	
	(1)	BN	A	68	86	91	95	100	100	100	109				
Maximum current FLA	(1)	BA	A	702	750	789	832	903	951	985	1005	1053	1152	1192	1335
	(1)	BE	A	725	764	818	861	920	964	1008	1026	1089	1171	1218	
	(1)	BU	A	725	764	818	861	922	965	1008	1030	1093	1174	1221	
	(1)	BN	A	739	805	854	906	958	992	1026	1064				
Peak current LRA	(1)	BA	A	876	949	972	1127	1202	1328	1325	1094	1121	1229	1252	1515
	(1)	BE	A	900	964	1001	1156	1219	1341	1348	1115	1156	1247	1278	
	(1)	BU	A	900	964	1001	1156	1221	1342	1348	1119	1160	1250	1281	
	(1)	BN	A	914	1004	1037	1201	1257	1369	1366	1153				
Compressors			type	twin-screw											
Compressors			n°	2	2	2	2	2	2	3	3	3	3	3	3
Circuits			n°	2	2	2	2	2	2	3	3	3	3	3	3
Refrigerant gas			type	R134a											
Heat exchanger			type	shell and tube											
Quantity	(1)	BA	n°	1	1	1	1	1	1	1	2	2	2	2	2
	(1)	BE	n°	1	1	1	1	2	2	2	2	2	2	2	
	(1)	BU	n°	1	1	1	1	2	2	2	2	2	2	2	
	(1)	BN	n°	1	2	2	2	2	2	2	2				
Standard Fans			type	axial											
Quantity		BA	n°	16	18	18	18	20	22	22	24	24	28	28	30
		BE	n°	20	20	22	22	24	26	28	28	30	30	32	
		BU	n°	20	20	22	22	24	26	28	28	30	30	32	
		BN	n°	22	26	28	30	32	32	32	34				
Air flow rate		BA	m³/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000
		BE	m³/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400	
		BU	m³/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000	
		BN	m³/h	246400	291200	313600	336000	358400	358400	358400	380800				
Sound data															
Sound power		BA	dB(A)	101	102	102	102	102	102	103	103	103	103	104	104
		BE	dB(A)	95	95	95	96	96	96	96	96	96	96	97	
		BU	dB(A)	102	102	102	102	103	103	103	103	104	104	104	
		BN	dB(A)	95	96	96	97	97	97	97	97				
Electric power supply			V/ph/Hz	400V/3/50Hz											

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

## Technical data

Mod NSM Free cooling PLUS glycol free		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling capacity	GA kW	306	349	395	447	502	519	553	597	645	674	722	808	865	947
	GE kW	317	363	414	470	504	545	564	614	641	670	711	791	843	921
	GU kW	327	377	428	489	528	565	586	635	664	692	732	820	885	962
	GN kW	325	375	423	484	522	557	577	623	652	680	720	807	883	955
Input power	GA kW	104	119	138	160	171	183	197	205	223	238	257	273	299	322
	GE kW	107	125	139	161	181	185	198	208	223	239	258	275	301	324
	GU kW	106	123	138	157	175	182	193	204	218	231	246	266	291	315
	GN kW	104	120	136	155	173	180	192	203	217	231	246	267	286	310
EER	GA W/W	2,95	2,94	2,86	2,79	2,94	2,84	2,81	2,91	2,89	2,83	2,81	2,96	2,89	2,94
	GE W/W	2,97	2,91	2,99	2,91	2,79	2,94	2,85	2,96	2,87	2,80	2,76	2,88	2,80	2,84
	GU W/W	3,08	3,07	3,11	3,10	3,02	3,11	3,03	3,10	3,04	2,99	2,98	3,08	3,04	3,06
	GN W/W	3,11	3,12	3,12	3,11	3,02	3,09	3,01	3,07	3,00	2,94	2,92	3,02	3,09	3,08
Water flow rate	GA l/h	52600	60090	67940	76940	86360	89280	95050	102710	111010	115990	124160	138940	148770	162860
	GE l/h	54470	62460	71290	80760	86710	93810	97020	105580	110230	115210	122270	135990	145080	158470
	GU l/h	56230	64790	73540	84070	90740	97250	100720	109150	114220	118970	125990	141090	152170	165430
	GN l/h	55920	64530	72740	83170	89790	95770	99190	107170	112100	116890	123890	138810	151850	164280
Total pressure drops	GA kPa	72	94	99	71	89	95	107	106	116	99	93	80	92	111
	GE kPa	63	75	83	77	88	87	92	102	108	89	93	79	90	108
	GU kPa	66	80	87	82	95	92	98	104	87	94	86	84	98	116
	GN kPa	54	64	66	82	95	91	97	78	85	92	85	83	99	105
Cooling capacity	GA kW	279	287	296	310	377	381	385	461	470	489	494	573	579	647
	GE kW	258	265	316	334	337	401	405	456	461	479	488	551	556	614
	GU kW	287	299	356	380	388	457	461	516	541	546	562	627	639	692
	GN kW	301	318	372	384	394	447	452	516	527	532	542	605	665	723
Input power	GA kW	18	18	18	18	25	25	25	32	32	32	32	37	37	41
	GE kW	15	15	20	20	20	26	26	30	30	30	30	33	33	36
	GU kW	19	19	25	27	27	32	32	37	37	37	37	41	41	45
	GN kW	18	20	26	26	27	30	30	33	33	33	33	39	42	45
EER	GA W/W	15,24	15,70	16,17	16,90	15,29	15,44	15,59	14,37	14,66	15,13	15,28	15,46	15,62	15,81
	GE W/W	16,92	17,42	16,16	16,97	17,13	15,37	15,52	15,36	15,51	15,96	16,27	16,73	16,89	17,18
	GU W/W	14,95	15,56	14,49	14,16	14,44	14,23	14,37	14,07	14,62	14,77	15,16	15,32	15,62	15,49
	GN W/W	16,68	16,16	14,35	14,82	14,81	15,05	15,21	15,72	16,04	16,20	16,44	15,35	15,77	16,06
Total pressure drops	GA kPa	72	94	99	71	89	95	107	106	116	99	93	80	92	111
	GE kPa	63	75	83	77	88	87	92	102	108	89	93	79	90	108
	GU kPa	66	80	87	82	95	92	98	104	87	94	86	84	98	116
	GN kPa	54	64	66	82	95	91	97	78	85	92	85	83	99	105

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling glycol free (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C;  
Coil circuit glycol 30%; Plant circuit glycol 0%

Electrical data															
Total input current (Chiller)	(1) GA A	184	208	233	271	294	315	339	355	382	405	433	456	492	536
	(1) GE A	179	208	225	263	298	308	329	345	369	393	421	443	480	523
	(1) GU A	187	213	234	269	300	316	335	356	377	396	418	447	482	528
	(1) GN A	176	201	220	255	286	300	320	338	360	381	404	431	457	501
Total input current (Free cooling glycol free)	(1) GA A	36	36	36	37	48	48	48	62	62	62	62	71	71	79
	(1) GE A	23	23	30	30	30	40	40	45	45	46	46	50	50	54
	(1) GU A	38	38	48	52	52	62	62	71	71	71	71	79	79	87
	(1) GN A	27	30	40	40	41	45	45	50	50	50	50	60	64	68
Maximum current FLA	(1) GA A	250	278	305	338	384	405	427	466	491	491	491	549	597	654
	(1) GE A	251	279	317	351	384	420	442	476	501	501	501	558	606	662
	(1) GU A	251	279	317	354	388	420	441	476	501	501	501	558	606	662
	(1) GN A	260	290	332	365	400	430	451	485	510	510	510	572	628	691
Peak current LRA	(1) GA A	271	313	356	394	429	476	494	535	545	546	546	680	719	849
	(1) GE A	272	314	368	407	430	491	509	545	555	556	556	688	728	858
	(1) GU A	272	314	368	410	433	491	508	545	555	555	556	688	728	857
	(1) GN A	281	326	383	421	445	501	518	554	564	564	564	703	751	886
Compressors		type				twin-screw									
Compressors		n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits		n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant gas		type				R134a									
Heat exchanger		type				shell and tube									
Quantity	(1) GA n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1) GE n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1) GU n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	(1) GN n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Standard Fans		type				axial									
Quantity	GA n°	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	GE n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	GU n°	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	GN n°	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	GA m³/h	109600	109600	109600	109600	137000	137000	137000	164400	164400	164400	164400	191800	191800	219200
	GE m³/h	85600	85600	107000	107000	107000	128400	128400	149800	149800	149800	149800	171200	171200	192600
	GU m³/h	109600	109600	137000	137000	137000	164400	164400	191800	191800	191800	191800	219200	219200	246600
	GN m³/h	107000	107000	128400	128400	128400	149800	149800	171200	171200	171200	171200	192600	214000	235400
Sound data															
Sound power	GA dB(A)	98	98	98	98	99	99	99	100	100	100	100	100	100	101
	GE dB(A)	91	91	92	92	92	93	93	93	93	93	93	94	94	95
	GU dB(A)	98	98	99	99	99	100	100	100	100	100	100	101	101	102
	GN dB(A)	92	92	92	92	93	93	93	93	93	93	93	94	95	95
Electric power supply		V/ph/Hz				400V/3/50Hz									

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)

## Technical data

Mod NSM Free cooling PLUS glycol free			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling capacity	GA	kW	989	1074	1119	1156	1213	1295	1336	1448	1490	1647	1692	1823	2013
	GE	kW	988	1042	1127	1148	1207	1269	1332	1422	1488	1583	1668		
	GU	kW	1025	1088	1174	1201	1258	1319	1379	1482	1545	1656	1742		
	GN	kW	999	1093	1156	1212	1268	1311	1354	1470					
Input power	GA	kW	351	370	397	428	444	458	478	498	527	564	591	667	712
	GE	kW	344	375	395	424	442	454	467	498	517	577	597		
	GU	kW	335	362	383	410	431	444	458	483	504	556	577		
	GN	kW	337	353	373	396	420	438	455	477					
EER	GA	W/W	2,82	2,90	2,82	2,70	2,73	2,83	2,79	2,91	2,83	2,92	2,86	2,73	2,83
	GE	W/W	2,87	2,78	2,86	2,71	2,73	2,79	2,85	2,86	2,88	2,74	2,80		
	GU	W/W	3,06	3,00	3,06	2,93	2,92	2,97	3,01	3,07	3,07	2,98	3,02		
	GN	W/W	2,97	3,09	3,10	3,06	3,02	3,00	2,97	3,08					
Water flow rate	GA	l/h	170060	184760	192490	198900	208590	222770	229830	249020	256220	283280	291010	313530	346260
	GE	l/h	169860	179210	193870	197450	207550	218320	229100	244540	255930	272310	286960		
	GU	l/h	176350	187150	201920	206550	216360	226790	237230	254900	265810	284790	299560		
	GN	l/h	171790	187940	198770	208410	218050	225490	232920	252840					
Total pressure drops	GA	kPa	120	130	140	114	107	123	131	111	120	130	140	106	133
	GE	kPa	124	126	128	132	83	114	111	111	122	122	131		
	GU	kPa	118	135	137	143	103	123	112	116	118	135	137		
	GN	kPa	114	102	103	109	71	77	81	104					
Cooling capacity	GA	kW	653	730	737	744	797	857	865	964	970	1118	1125	1210	1355
	GE	kW	683	694	752	759	819	875	931	951	1020	1039	1097		
	GU	kW	784	792	854	863	941	998	1055	1080	1165	1184	1254		
	GN	kW	730	853	903	978	1043	1051	1053	1113					
Input power	GA	kW	41	45	45	45	49	52	52	59	59	70	70	77	85
	GE	kW	42	42	45	45	52	56	59	55	62	64	67		
	GU	kW	52	52	56	56	66	70	73	72	76	76	84		
	GN	kW	45	56	59	63	66	66	66	72					
EER	GA	W/W	15,96	16,25	16,40	16,56	16,36	16,33	16,49	16,25	16,35	16,07	16,17	15,72	15,97
	GE	W/W	16,12	16,35	16,63	16,78	15,67	15,67	15,67	17,16	16,44	16,15	16,35		
	GU	W/W	14,95	15,09	15,19	15,34	14,33	14,35	14,38	15,10	15,42	15,66	14,92		
	GN	W/W	16,22	15,28	15,21	15,63	15,88	16,02	16,04	15,54					
Total pressure drops	GA	kPa	120	130	140	114	107	123	131	111	120	130	140	106	133
	GE	kPa	124	126	128	132	83	114	111	111	122	122	131		
	GU	kPa	118	135	137	143	103	123	112	116	118	135	137		
	GN	kPa	114	102	103	109	71	77	81	104					

### Cooling mode

Evaporator water temperature (in/out) 12°C/7°C; Outdoor air temperature 35°C

### Cooling in freecooling glycol free (100%)

Evaporator water temperature (in) 15°C; Outdoor air temperature 2°C;  
Coil circuit glycol 30%; Plant circuit glycol 0%

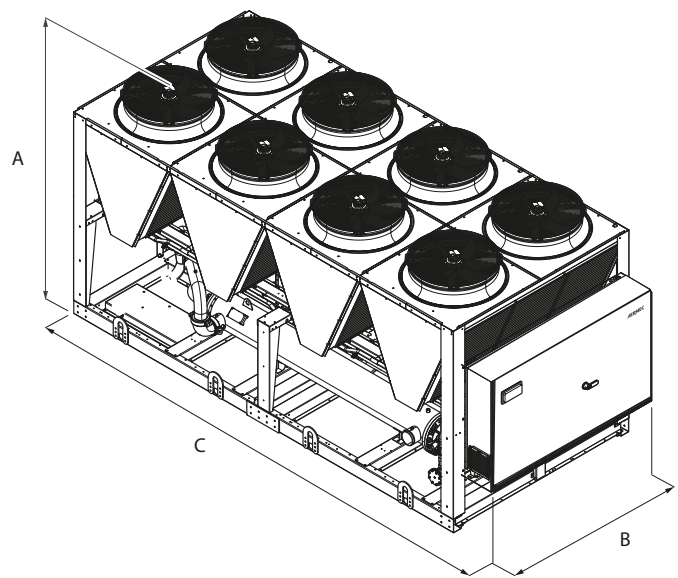
Electrical data																
Total input current (Chiller)	(1)	GA	A	588	621	662	713	741	769	805	830	882	956	998	1112	1211
	(1)	GE	A	561	609	640	687	717	740	763	814	842	937	957		
	(1)	GU	A	569	611	645	688	725	752	780	819	854	936	963		
	(1)	GN	A	550	575	606	644	682	714	746	778					
Total input current (Free cooling glycol free)	(1)	GA	A	79	87	87	87	95	102	102	116	116	135	135	149	165
	(1)	GE	A	64	64	68	68	80	86	91	84	94	98	102		
	(1)	GU	A	101	101	108	108	126	134	141	139	147	147	162		
	(1)	GN	A	68	86	91	95	100	100	100	109					
Maximum current FLA	(1)	GA	A	702	749	788	831	883	931	965	1004	1052	1151	1190	1334	1453
	(1)	GE	A	725	764	817	860	920	964	1007	1026	1088	1170	1217		
	(1)	GU	A	725	764	817	860	921	964	1007	1029	1086	1164	1218		
	(1)	GN	A	739	805	853	905	957	991	1025	1064					
Peak current LRA	(1)	GA	A	876	949	971	1126	1182	1308	1305	1093	1120	1228	1250	1514	1637
	(1)	GE	A	899	963	1000	1155	1219	1341	1347	1114	1156	1246	1277		
	(1)	GU	A	899	963	1000	1155	1220	1341	1347	1117	1153	1240	1278		
	(1)	GN	A	913	1004	1036	1200	1256	1368	1365	1152					
Compressors			type	twin-screw												
Compressors			n°	2	2	2	2	2	2	2	3	3	3	3	3	3
Circuits			n°	2	2	2	2	2	2	2	3	3	3	3	3	3
Refrigerant gas			type	R134a												
Heat exchanger			type	shell and tube												
Quantity	(1)	GA	n°	1	1	1	1	1	1	1	2	2	2	2	2	2
	(1)	GE	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	GU	n°	1	1	1	1	2	2	2	2	2	2	2		
	(1)	GN	n°	1	2	2	2	2	2	2	2					
Standard Fans			type	axial												
Quantity		GA	n°	16	18	18	18	20	22	22	24	24	28	28	30	34
		GE	n°	20	20	22	22	24	26	28	28	30	30	32		
		GU	n°	20	20	22	22	24	26	28	28	30	30	32		
		GN	n°	22	26	28	30	32	32	32	34					
Air flow rate		GA	m³/h	219200	246600	246600	246600	274000	301400	301400	328800	328800	383600	383600	411000	465800
		GE	m³/h	214000	214000	235400	235400	256800	278200	299600	299600	321000	321000	342400		
		GU	m³/h	274000	274000	301400	301400	328800	356200	383600	383600	411000	411000	438400		
		GN	m³/h	235400	278200	299600	321000	342400	342400	342400	363800					
Sound data																
Sound power		GA	dB(A)	101	102	102	102	102	102	102	103	103	103	103	104	104
		GE	dB(A)	95	95	95	96	96	96	96	96	96	96	97		
		GU	dB(A)	102	102	102	102	103	103	103	103	104	104	104		
		GN	dB(A)	95	96	96	97	97	97	97	97					
Electric power supply			V/ph/Hz	400V/3/50Hz												

(1) The electric data is of the versions without integrated hydronic kit.

**Sound power** Aermec determines sound power values in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by the Eurovent certification.

**Note:** For further information, refer to the selection program or to the technical documentation on [www.aermec.com](http://www.aermec.com)





Mod. NSM Free cooling glycol free and Free cooling plus glycol free

			Vers	1402	1602	1802	2002	2202	2352	2502	2652
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	5160	5160	5160	5160	6350	6350	6350	7140
			E	5160	5160	6350	6350	6350	7140	7140	8330
			U	5160	5160	6350	6350	6350	7140	7140	8330
			N	6350	6350	7140	7140	7140	8330	8330	9520
			Vers	2802	3002	3202	3402	3602	3902	4202	4502
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	7140	7140	7140	8330	8330	9520	9520	10710
			E	8330	8330	8330	9520	9520	10710	11900	11900
			U	8330	8330	8330	9520	9520	10710	11900	11900
			N	9520	9520	9520	10710	11900	13090	13090	15470
			Vers	4802	5202	5602	6002	6402	6503	6703	6903
Height	(mm)	A	All	2450	2450	2450	2450	2450	2450	2450	2450
Width	(mm)	B	All	2200	2200	2200	2200	2200	2200	2200	2200
Length	(mm)	C	A	10710	10710	11900	13090	13090	14280	14280	16660
			E	13090	13090	14280	15470	16660	16660	17850	17850
			U	13090	13090	14280	15470	16660	16660	17850	17850
			N	16660	17850	19040	19040	19040	20230		
			Vers	7203	8403	9603					
Height	(mm)	A	All	2450	2450	2450					
Width	(mm)	B	All	2200	2200	2200					
Length	(mm)	C	A	16660	17850	20230					
			E	19040							
			U	19040							
			N								

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

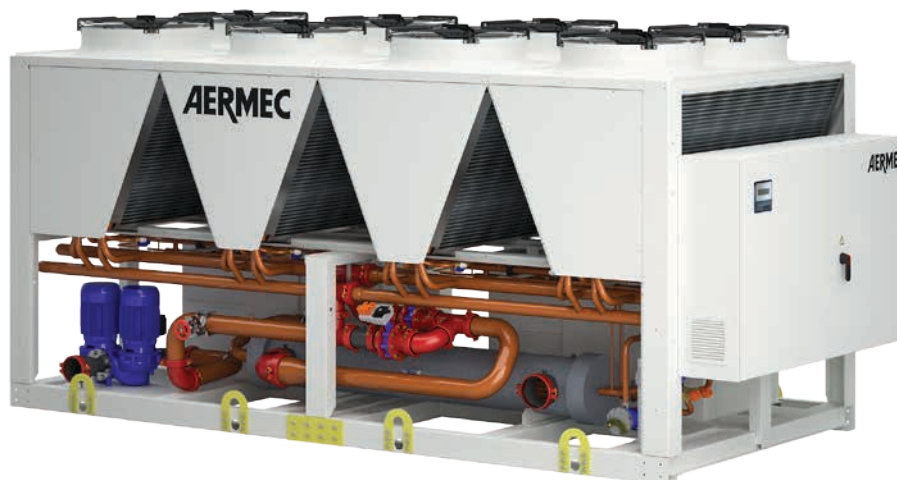
Aermec S.p.A.  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy  
Telephone +39 0442633111 - Telefax +39 044293577  
www.aermec.com

## NSM HWT

1402/9603  
free cooling

HFC  
Refrigerant  
R134a

Air/Water inverter chillers for outdoor installation with free cooling  
Screw compressors, shell and tube heat exchangers and axial fans  
Cooling capacity 306 - 2001kW



- HIGH EFFICIENCY ALSO AT PARTIAL LOADS
- MICROCHANNEL COIL
- IDEAL IN DATA CENTER APPLICATIONS
- WATER OUTLET TEMPERATURES UP TO 30°C
- NIGHT MODE

### Features

The NSM are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities. These are outdoor units with screw inverter compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

#### Versions

NSMWF\_A High Efficiency

NSMIWF\_E High efficiency low noise

NSMWF\_U Very high efficiency

NSMIWF\_N Very high efficiency low noise

- Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- fans inverter
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor

operation

- **Complete with latest generation Touch screen** allowing real time graphics visualization showing water and external air temperatures, pressures and requested load. Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote

control max. 6 units in RS485 network with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **FB1:** Air filter;
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Supporti anti-vibranti a molla.

#### Accessories factory fitted only

- **KRS:** Evaporator trace heating
- **GP:** Anti-intrusion grids.



## Accessories compatibility

Mod. NSM	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)
AERWEB300		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AVX	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Accessories factory fitted only																	
KRS	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
RIFNSM		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AK	(2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		4802	5202	5602	6002	6402	6903	7203	8403	9603							
AER485P1		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x3)	-(x3)	-(x3)	-(x3)							
AERWEB300		*	*	*	*	*	*	*	*	*							
PRV3		*	*	*	*	*	*	*	*	*							
MULTICHILLER		*	*	*	*	*	*	*	*	*							
AVX	(1)	*	*	*	*	*	*	*	*	*							
Accessories factory fitted only																	
KRS	(1)	*	*	*	*	*	*	*	*	*							
RIFNSM		4802	5202	5602	6002	6402	6903	7203	8403	9603							
GP	(1)	*	*	*	*	*	*	*	*	*							
AK	(2)	*	*	*	*	*	*	*	*	*							

(1) Accessories to be defined for compatibility

(2) The accessory is only available for the "E/N" silenced versions

(x2) Indicates the amount to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
1,2,3	<b>NSM</b>
4,5,6,7	<b>Size</b> 1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 6903-7203-8403-9603
8	<b>Operational limits</b>
	<b>W</b> Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)
9	<b>Model</b>
	<b>F</b> Free cooling
	<b>P</b> Free cooling Plus (3)
11	<b>Versions</b>
	<b>A</b> High efficiency
	<b>E</b> Low noise high efficiency
	<b>U</b> Very high efficiency
	<b>N</b> Low noise very high efficiency
12	<b>Condensing coils</b>
	° Aluminium microchannel
	<b>O</b> Painted aluminium microchannel
	<b>R</b> Copper - Copper (3)
	<b>S</b> Copper - Thinned (3)
	<b>V</b> Epoxy paint (only free cooling coil)(3)
	<b>Free cooling water coils</b> Copper Aluminium Painted Aluminium Copper Copper Copper Copper - Thinned Epoxy paint (only free cooling coil)
13	<b>Fans</b>
	<b>J</b> Inverter
14	<b>Power supply</b>
	° 400V/3/50Hz
15-16	<b>Integrated hydronic kit</b>
	<b>00</b> Without hydronic kit
	<b>PA</b> Pumping unit (pump A)
	<b>PB</b> Pumping unit (pump B)
	<b>PC</b> Pumping unit (pump C)
	<b>PD</b> Pumping unit (pump D)
	<b>PE</b> Pumping unit (pump E)
	<b>PF</b> Pumping unit (pump F)
	<b>PG</b> Pumping unit (pump G)
	<b>PH</b> Pumping unit (pump H)
	<b>PI</b> Pumping unit (pump I)
	<b>PJ</b> Pumping unit (pump J)
	<b>DA</b> Pumping unit (pump A and stand-by pump)
	<b>DB</b> Pumping unit (pump B and stand-by pump)
	<b>DC</b> Pumping unit (pump C and stand-by pump)
	<b>DD</b> Pumping unit (pump D and stand-by pump)
	<b>DE</b> Pumping unit (pump E and stand-by pump)
	<b>DF</b> Pumping unit (pump F and stand-by pump)
	<b>DG</b> Pumping unit (pump G and stand-by pump)
	<b>DH</b> Pumping unit (pump H and stand-by pump)
	<b>DI</b> Pumping unit (pump I and stand-by pump)
	<b>DJ</b> Pumping unit (pump J and stand-by pump)
	<b>Operation of pumps in parallel</b>
	<b>TF</b> Double static, pressure pump (pump F)
	<b>TG</b> Double static, pressure pump (pump G)
	<b>TH</b> Double static, pressure pump (pump h)
	<b>TI</b> Double static, pressure pump (pump i)
	<b>TJ</b> Double static, pressure pump (pump J)

(3) The free cooling plus models can have coils only in options "om" and "O"

NSMW - FA			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
V/ph/Hz			400V/3/50Hz													
25°C / 20°C	Cooling capacity	(1)	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
	Total input power	(1)	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
	EER	(1)		3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,80	3,84	3,92	3,86
	Water flow rate	(1)	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
	Pressure drop	(1)	kPa	60	80	95	76	89	99	116	85	91	96	84	93	103
25°C	Cooling capacity	(2)	kW	336	351	363	370	449	454	462	542	551	554	559	644	651
	Total input power	(2)	kW	19,3	19,3	19,3	19,3	24,1	24,1	24,1	28,9	28,9	28,9	28,9	33,7	33,7
	EER	(2)		17,43	18,20	18,82	19,20	18,63	18,86	19,16	18,74	19,06	19,15	19,32	19,11	19,29
	Water flow rate	(2)	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
	Pressure drop	(2)	kPa	87	115	139	129	133	147	171	128	141	147	141	146	161

NSMW - FA				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
	Total input power	(1)	kW	216	228	244	260	281	295	319	343	373	388	442	512
	EER	(1)		3,95	3,87	3,92	3,90	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
	Water flow rate	(1)	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
	Pressure drop	(1)	kPa	69	74	91	101	94	110	130	144	116	116	117	138
	25°C	Cooling capacity	(2)	kW	735	740	827	836	845	935	1025	1033	1284	1293	1402
Total input power		(2)	kW	38,5	38,5	43,4	43,4	43,4	48,2	53,0	53,0	67,5	67,5	72,3	81,9
EER		(2)		19,07	19,19	19,07	19,27	19,48	19,39	19,33	19,49	19,03	19,17	19,40	19,42
Water flow rate		(2)	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
Pressure drop		(2)	kPa	119	127	142	158	159	173	194	213	165	165	179	207

NSMW - PA				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
	Total input power	(1)	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
	EER	(1)		3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
	Water flow rate	(1)	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
	Pressure drop	(1)	kPa	59	79	94	75	89	98	115	84	90	95	83	92	102
25°C	Cooling capacity	(2)	kW	361	378	391	399	484	490	497	584	594	597	602	694	701
	Total input power	(2)	kW	19,7	19,7	19,7	19,7	24,6	24,6	24,6	29,5	29,5	29,5	29,5	34,4	34,4
	EER	(2)		18,35	19,22	19,89	20,29	19,69	19,93	20,25	19,81	20,15	20,24	20,41	20,19	20,38
	Water flow rate	(2)	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
	Pressure drop	(2)	kPa	86	114	138	128	131	145	169	127	139	146	139	145	160

NSMW - PA			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
25°C / 20°C	Cooling capacity	(1)	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
	Total input power	(1)	kW	218	230	247	262	284	298	322	346	377	392	447	517
	EER	(1)		3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
	Water flow rate	(1)	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
	Pressure drop	(1)	kPa	69	73	90	100	93	109	129	142	115	115	115	136
25°C	Cooling capacity	(2)	kW	792	797	891	900	910	1007	1104	1113	1384	1393	1510	1713
	Total input power	(2)	kW	39,3	39,3	44,2	44,2	44,2	49,1	54,0	54,0	68,8	68,8	73,7	83,5
	EER	(2)		20,16	20,28	20,16	20,36	20,58	20,49	20,42	20,59	20,12	20,25	20,49	20,51
	Water flow rate	(2)	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
	Pressure drop	(2)	kPa	118	126	141	156	157	172	192	211	164	164	178	205

#### Date

- (1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling  
(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	FA	(3)	A	146	166	187	200	208	224	242	258	277	290	306	327	348
	PA	(3)	A	147	167	188	201	210	226	244	260	279	292	308	330	351
Total input current (freecooling)	FA	(3)	A	30,0	30,0	30,0	30,0	37,6	37,6	37,6	45,1	45,1	45,1	45,1	52,6	52,6
	PA	(3)	A	30,6	30,6	30,6	30,6	38,2	38,2	38,2	45,9	45,9	45,9	45,9	53,5	53,5
Maximum current (FLA)	Alls	(3)	A	204	226	251	257	273	290	306	335	355	380	405	428	440
Starting current (LRA)	Alls	(3)	A	277	285	299	336	350	346	359	439	451	515	568	622	592
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1												
Axial fans																
Fan	Alls		n°	8	8	8	8	10	10	10	12	12	12	12	14	14
Sound data (cooling)																
Sound power level	Alls		dB(A)	97	97	97	97	98	98	98	98	98	99	99	100	101

				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Total input current (cooling)	FA	(3)	A	362	377	416	453	478	494	531	567	646	683	740	854
	PA	(3)	A	365	381	420	456	482	498	536	571	652	688	747	861
Total input current (freecooling)	FA	(3)	A	60,1	60,1	67,6	67,6	67,6	75,1	82,6	82,6	105,1	105,1	112,7	127,7
	PA	(3)	A	61,2	61,2	68,8	68,8	68,8	76,5	84,1	84,1	107,0	107,0	114,7	130,0
Maximum current (FLA)	Alls	(3)	A	473	497	538	570	590	620	668	701	831	863	933	1051
Starting current (LRA)	Alls	(3)	A	601	625	680	710	846	886	965	958	902	932	1137	1205
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
Refrigerant			Type	R134a											
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	2	2	2	2
Axial fans															
Fan	Alls		n°	16	16	18	18	18	20	22	22	28	28	30	34
Sound data (cooling)															
Sound power level	Alls		dB(A)	101	100	101	101	101	102	102	102	104	104	105	105

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

## Technical data

NSMW - FE			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
V/ph/Hz			400V/3/50Hz													
25°C / 20°C	Cooling capacity	(1)	kW	315	362	415	456	478	524	551	599	626	641	667	735	772
	Total input power	(1)	kW	75	91	101	112	120	127	138	145	156	161	169	178	192
	EER	(1)		4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
	Water flow rate	(1)	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
	Pressure drop	(1)	kPa	42	49	64	76	85	61	66	68	74	79	80	51	58
25°C	Cooling capacity	(2)	kW	267	273	337	342	344	408	411	474	478	479	482	548	551
	Total input power	(2)	kW	6,4	6,4	7,9	7,9	7,9	9,5	9,5	11,1	11,1	11,1	11,1	12,7	12,7
	EER	(2)		41,99	43,01	42,41	43,05	43,31	42,79	43,10	42,64	42,94	43,08	43,29	43,10	43,35
	Water flow rate	(2)	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
	Pressure drop	(2)	kPa	71	86	97	115	127	95	104	102	112	118	122	89	99
NSMW - FE			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603		
25°C / 20°C	Cooling capacity	(1)	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	/	/	
	Total input power	(1)	kW	202	210	228	241	260	275	296	318	350	364	/	/	
	EER	(1)		4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	/	/	
	Water flow rate	(1)	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	/	/	
	Pressure drop	(1)	kPa	69	78	91	86	94	65	81	81	105	105	/	/	
25°C	Cooling capacity	(2)	kW	616	680	686	753	759	826	893	960	1031	1099	/	/	
	Total input power	(2)	kW	14,3	15,9	15,9	17,5	17,5	19,1	20,7	22,3	23,8	25,4	/	/	
	EER	(2)		43,07	42,76	43,17	43,10	43,39	43,32	43,24	43,16	43,27	43,21	/	/	
	Water flow rate	(2)	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	/	/	
	Pressure drop	(2)	kPa	107	114	133	128	140	106	121	121	150	150	/	/	
NSMW - PE			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
25°C / 20°C	Cooling capacity	(1)	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
	Total input power	(1)	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
	EER	(1)		4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
	Water flow rate	(1)	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
	Pressure drop	(1)	kPa	42	49	63	75	83	60	65	67	73	78	79	51	57
25°C	Cooling capacity	(2)	kW	285	292	360	365	367	435	438	506	509	511	513	584	587
	Total input power	(2)	kW	6,5	6,5	8,1	8,1	8,1	9,7	9,7	11,3	11,3	11,3	11,3	12,9	12,9
	EER	(2)		44,05	45,10	44,49	45,14	45,38	44,88	45,19	44,73	45,03	45,17	45,36	45,18	45,42
	Water flow rate	(2)	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
	Pressure drop	(2)	kPa	70	86	96	113	125	94	102	101	110	116	120	88	98
NSMW - PE			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603		
25°C / 20°C	Cooling capacity	(1)	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	/	/	
	Total input power	(1)	kW	204	212	230	244	263	278	300	321	354	368	/	/	
	EER	(1)		4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	/	/	
	Water flow rate	(1)	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	/	/	
	Pressure drop	(1)	kPa	68	77	90	85	93	64	80	80	104	104	/	/	
25°C	Cooling capacity	(2)	kW	657	725	732	803	808	880	952	1024	1099	1171	/	/	
	Total input power	(2)	kW	14,5	16,2	16,2	17,8	17,8	19,4	21,0	22,6	24,2	25,9	/	/	
	EER	(2)		45,16	44,85	45,26	45,19	45,45	45,40	45,32	45,24	45,35	45,30	/	/	
	Water flow rate	(2)	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	/	/	
	Pressure drop	(2)	kPa	106	113	131	127	139	104	119	120	148	149	/	/	

### Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
Electrical data																
Total input current (cooling)	FE	(3)	A	134	158	175	189	199	210	227	240	258	272	288	303	325
	PE	(3)	A	134	159	176	190	201	211	229	242	260	274	291	306	328
Total input current (freecooling)	FE	(3)	A	9,4	9,4	11,8	11,8	11,8	14,1	14,1	16,5	16,5	16,5	16,5	18,8	18,8
	PE	(3)	A	9,6	9,6	11,9	11,9	11,9	14,3	14,3	16,7	16,7	16,7	16,7	19,1	19,1
Maximum current (FLA)	Alls	(3)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
Starting current (LRA)	Alls	(3)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	8	8	10	10	10	12	12	14	14	14	14	16	16
Sound data (cooling)																
Sound power level	Alls		dB(A)	93	93	93	94	94	93	93	93	93	95	96	98	98

			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data															
Total input current (cooling)	FE	(3)	A	339	348	388	421	443	460	493	526	601	631	/	/
	PE	(3)	A	342	351	392	425	448	464	497	531	607	636	/	/
Total input current (freecooling)	FE	(3)	A	21,2	23,5	23,5	25,9	25,9	28,2	30,6	32,9	35,3	37,6	/	/
	PE	(3)	A	21,5	23,9	23,9	26,3	26,3	28,7	31,0	33,4	35,8	38,2	/	/
Maximum current (FLA)	Alls	(3)	A	483	516	548	595	615	645	688	730	841	882	/	/
Starting current (LRA)	Alls	(3)	A	611	644	690	735	871	911	984	986	911	951	/	/
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/
Refrigerant	Alls		Type	R134a										/	/
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	1	1	1	2	2	2	2	2	/	/
Axial fans															
Fan	Alls		n°	18	20	20	22	22	24	26	28	30	32	/	/
Sound data (cooling)															
Sound power level	Alls		dB(A)	98	96	97	97	99	100	100	99	99	99	/	/

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

## Technical data

NSMW - FU			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
			V/ph/Hz													
			400V/3/50Hz													
25°C / 20°C	Cooling capacity	(1)	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
	Total input power	(1)	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
	EER	(1)		3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
	Water flow rate	(1)	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
	Pressure drop	(1)	kPa	46	54	71	84	94	66	72	74	81	86	87	56	64
25°C	Cooling capacity	(2)	kW	344	359	437	450	455	533	540	617	625	629	635	719	728
	Total input power	(2)	kW	19,3	19,3	24,1	24,1	24,1	28,9	28,9	33,7	33,7	33,7	33,7	38,5	38,5
	EER	(2)		17,84	18,61	18,16	18,66	18,87	18,43	18,67	18,31	18,54	18,65	18,84	18,66	18,89
	Water flow rate	(2)	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
	Pressure drop	(2)	kPa	77	95	107	127	142	104	114	111	122	129	134	97	109

NSMW - FU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	/	/
	Total input power	(1)	kW	216	228	243	260	276	293	317	341	372	388	/	/
	EER	(1)		3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	/	/
	Water flow rate	(1)	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	/	/
	Pressure drop	(1)	kPa	75	84	99	94	103	71	88	88	116	116	/	/
25°C	Cooling capacity	(2)	kW	808	886	902	989	1003	1091	1177	1262	1359	1446	/	/
	Total input power	(2)	kW	43,4	48,2	48,2	53,0	53,0	57,8	62,6	67,5	72,3	77,1	/	/
	EER	(2)		18,64	18,38	18,72	18,65	18,92	18,86	18,78	18,71	18,80	18,75	/	/
	Water flow rate	(2)	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	/	/
	Pressure drop	(2)	kPa	117	124	145	140	154	116	132	132	166	165	/	/

NSMW - PU				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
	Total input power	(1)	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
	EER	(1)		3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
	Water flow rate	(1)	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
	Pressure drop	(1)	kPa	46	54	70	83	93	66	72	73	80	85	86	55	63
25°C	Cooling capacity	(2)	kW	370	386	471	484	490	574	582	665	674	678	685	775	785
	Total input power	(2)	kW	19,7	19,7	24,6	24,6	24,6	29,5	29,5	34,4	34,4	34,4	34,4	39,3	39,3
	EER	(2)		18,82	19,66	19,17	19,72	19,94	19,47	19,73	19,34	19,59	19,71	19,91	19,72	19,97
	Water flow rate	(2)	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
	Pressure drop	(2)	kPa	77	94	106	126	140	103	113	111	121	128	133	96	108

NSMW - PU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	/	/
	Total input power	(1)	kW	218	230	245	262	278	296	320	344	375	392	/	/
	EER	(1)		3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	/	/
	Water flow rate	(1)	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	/	/
	Pressure drop	(1)	kPa	75	84	99	93	102	70	87	87	115	115	/	/
25°C	Cooling capacity	(2)	kW	871	954	972	1066	1081	1176	1268	1360	1465	1558	/	/
	Total input power	(2)	kW	44,2	49,1	49,1	54,0	54,0	59,0	63,9	68,8	73,7	78,6	/	/
	EER	(2)		19,70	19,42	19,79	19,71	20,00	19,94	19,85	19,77	19,88	19,82	/	/
	Water flow rate	(2)	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	/	/
	Pressure drop	(2)	kPa	117	123	144	139	153	115	131	131	164	164	/	/

### Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
<b>Electrical data</b>																
Total input current (cooling)	FU	(3)	A	148	170	192	204	212	229	244	263	279	291	305	326	345
	PU	(3)	A													
Total input current (freecooling)	FU	(3)	A	30,0	30,0	37,6	37,6	37,6	45,1	45,1	52,6	52,6	52,6	52,6	60,1	60,1
	PU	(3)	A													
Maximum current (FLA)	Alls	(3)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
Starting current (LRA)	Alls	(3)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
<b>Compressors - Screw</b>																
Compressors / Circuit	Alls	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls	Type	R134a													
<b>Heat exchanger system side - Shell&amp;tube</b>																
Heat exchanger	Alls	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Axial fans</b>																
Fan	Alls	n°	8	8	10	10	10	12	12	14	14	14	14	14	16	16
<b>Sound data (cooling)</b>																
Sound power level	Alls	dB(A)	97	97	98	98	98	99	99	99	99	99	99	100	101	102

			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data															
Total input current (cooling)	FU	(3)	A	363	378	414	454	472	493	529	566	639	677	/	/
	PU	(3)	A	366	381	418	457	475	497	533	570	644	682	/	/
Total input current (freecooling)	FU	(3)	A	67,6	75,1	75,1	82,6	82,6	90,1	97,6	105,1	112,7	120,2	/	/
	PU	(3)	A	68,8	76,5	76,5	84,1	84,1	91,8	99,4	107,0	114,7	122,3	/	/
Maximum current (FLA)	Alls	(3)	A	483	516	548	595	615	645	688	730	841	882	/	/
Starting current (LRA)	Alls	(3)	A	611	644	690	735	871	911	984	986	911	951	/	/
Compressors - Screw															
Compressors / Circuit	Alls	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/	
Refrigerant	Alls	Type	R134a												
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls	n°	1	1	1	1	1	2	2	2	2	2	/	/	
Axial fans															
Fan	Alls	n°	18	20	20	22	22	24	26	28	30	32	/	/	
Sound data (cooling)															
Livello di potenza sonora	Alls	dB(A)	101	101	101	102	102	103	103	103	104	104	/	/	

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

Technical data

NSMW - FN			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
			V/ph/Hz													
			400V/3/50Hz													
25°C / 20°C	Cooling capacity	(1)	kW	324	376	428	473	497	538	567	614	643	659	687	751	803
	Total input power	(1)	kW	74	88	99	109	116	124	134	142	152	157	163	174	184
	EER	(1)		4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32	4,38
	Water flow rate	(1)	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
	Pressure drop	(1)	kPa	46	54	42	49	56	65	71	45	49	53	51	54	64
25°C	Cooling capacity	(2)	kW	318	330	391	401	404	465	470	531	536	539	543	607	670
	Total input power	(2)	kW	7,9	7,9	9,5	9,5	9,5	11,1	11,1	12,7	12,7	12,7	12,7	14,3	15,9
	EER	(2)		39,96	41,57	41,02	42,00	42,41	41,76	42,22	41,75	42,17	42,36	42,67	42,46	42,16
	Water flow rate	(2)	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
	Pressure drop	(2)	kPa	67	81	66	78	87	93	102	72	79	84	84	87	95

NSMW - FN				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	852	881	969	1033	1115	1198	1263	1329	/	/	/	/
	Total input power	(1)	kW	195	207	218	232	249	265	288	311	/	/	/	/
	EER	(1)		4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	/	/	/	/
	Water flow rate	(1)	l/h	146560	151590	166730	177640	191820	206010	217280	228590	/	/	/	/
	Pressure drop	(1)	kPa	75	81	80	80	80	45	53	53	/	/	/	/
25°C	Cooling capacity	(2)	kW	731	737	857	921	988	1056	1068	1079	/	/	/	/
	Total input power	(2)	kW	17,5	17,5	20,7	22,3	23,8	25,4	25,4	25,4	/	/	/	/
	EER	(2)		41,84	42,13	41,48	41,37	41,45	41,52	42,01	42,42	/	/	/	/
	Water flow rate	(2)	l/h	146560	151590	166730	177640	191820	206010	217280	228590	/	/	/	/
	Pressure drop	(2)	kPa	105	113	106	106	106	71	84	84	/	/	/	/

NSMW - PN				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	323	374	426	471	494	535	564	611	640	656	683	746	799
	Total input power	(1)	kW	74	89	100	110	117	125	136	143	153	158	164	175	185
	EER	(1)		4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26	4,32
	Water flow rate	(1)	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
	Pressure drop	(1)	kPa	45	53	42	49	55	64	70	44	49	52	50	54	63
25°C	Cooling capacity	(2)	kW	337	352	417	427	431	495	501	566	572	575	579	648	715
	Total input power	(2)	kW	8,1	8,1	9,7	9,7	9,7	11,3	11,3	12,9	12,9	12,9	12,9	14,5	16,2
	EER	(2)		41,76	43,58	42,96	44,05	44,49	43,79	44,29	43,78	44,23	44,44	44,76	44,54	44,22
	Water flow rate	(2)	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
	Pressure drop	(2)	kPa	66	80	65	77	86	92	101	71	78	83	83	86	94

NSMW - PN				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	848	877	965	1028	1110	1192	1257	1322	/	/	/	/
	Total input power	(1)	kW	197	209	220	234	251	268	291	314	/	/	/	/
	EER	(1)		4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	/	/	/	/
	Water flow rate	(1)	l/h	145850	150820	165970	176870	190950	205020	216210	227390	/	/	/	/
	Pressure drop	(1)	kPa	74	80	79	79	79	45	53	53	/	/	/	/
25°C	Cooling capacity	(2)	kW	780	786	914	981	1053	1125	1139	1151	/	/	/	/
	Total input power	(2)	kW	17,8	17,8	21,0	22,6	24,2	25,9	25,9	25,9	/	/	/	/
	EER	(2)		43,88	44,20	43,48	43,37	43,45	43,52	44,06	44,51	/	/	/	/
	Water flow rate	(2)	l/h	145850	150820	165970	176870	190950	205020	216210	227390	/	/	/	/
	Pressure drop	(2)	kPa	104	112	105	105	105	70	84	84	/	/	/	/

Date

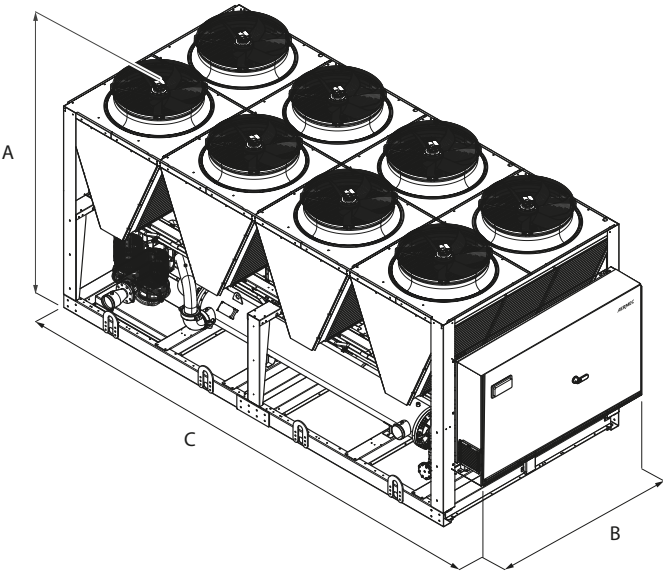
- (1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling  
(2) Water evaporator 25°C; External air 12°C

			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
<b>Electrical data</b>															
Total input current (cooling)	FN	(3) A	132	154	172	184	192	206	222	235	252	265	280	297	313
	PN	(3) A	132	155	173	185	194	207	224	237	254	267	282	300	316
Total input current (freecooling)	FN	(3) A	12	12	14	14	14	16	16	19	19	19	19	21	24
	PN	(3) A	12	12	14	14	14	17	17	19	19	19	19	21	24
Maximum current (FLA)	Alls	(3) A	214	236	270	277	283	309	325	354	374	399	425	447	469
Starting current (LRA)	Alls	(3) A	287	295	318	355	360	366	378	458	471	535	588	641	621
<b>Compressors - Screw</b>															
Compressors / Circuit	Alls	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls	Type	R134a												
<b>Heat exchanger system side - Shell&amp;tube</b>															
Heat exchanger	Alls	n°	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Axial fans</b>															
Fan	Alls	n°	10	10	12	12	12	14	14	16	16	16	16	18	20
<b>Sound data (cooling)</b>															
Sound power level	Alls	dB(A)	93	93	94	94	94	94	93	93	93	94	96	98	99

			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data															
Total input current (cooling)	FN	(3)	A	328	343	374	408	427	447	481	516	/	/	/	/
	PN	(3)	A	330	346	377	411	430	450	485	520	/	/	/	/
Total input current (freecooling)	FN	(3)	A	26	26	31	33	35	38	38	38	/	/	/	/
	PN	(3)	A	26	26	31	33	36	38	38	38	/	/	/	/
Maximum current (FLA)	Alls	(3)	A	508	531	583	624	654	683	716	749	/	/	/	/
Starting current (LRA)	Alls	(3)	A	636	659	724	764	910	949	1013	1006	/	/	/	/
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	/	/	/	/
Refrigerant	Alls		Type				R134a					/	/	/	/
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	2	2	2	2	2	2	/	/	/	/
Axial fans															
Fan	Alls		n°	22	22	26	28	30	32	32	32	/	/	/	/
Sound data (cooling)															
Sound power level	Alls		dB(A)	98	97	97	97	99	100	100	99	/	/	/	/

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.



NSMW F- P				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
			E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

NSMW F- P				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
			E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			N	13090	13090	15470	16660	17850	19040	19040	19040	/	/	/	/

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

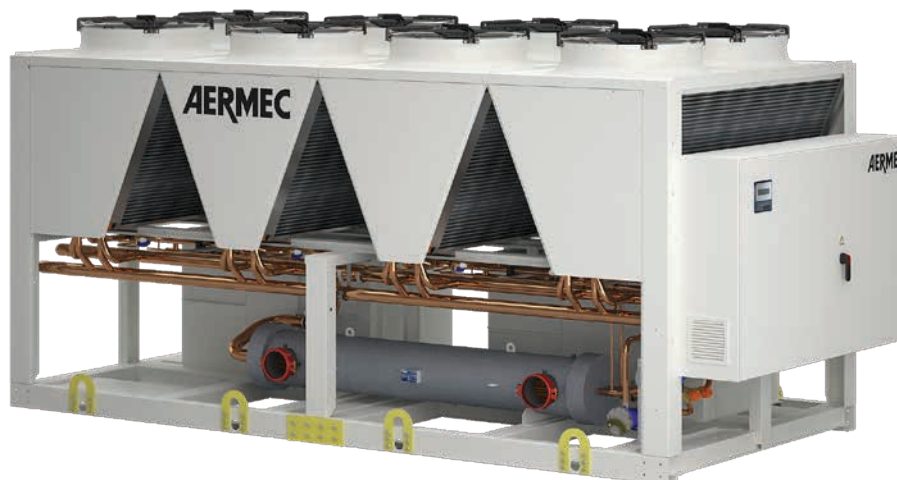


## NSM HWT

**1402/9603**  
**free cooling**  
**glycol free**

HFC  
Refrigerant  
**R134a**

**Air/Water chillers for outdoor installation with free cooling, glycol free circuit, screw compressors, shell and tube heat exchangers and axial fans.**  
**Cooling capacity 306 - 1991kW**



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL CONDENSER TECHNOLOGY**
- **IDEAL IN DATA CENTER APPLICATIONS**
- **WATER OUTLET TEMPERATURES UP TO 30°C**
- **NIGHT MODE FUNCTION**

### Features

NSM chillers are designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities. These are outdoor units with screw inverter compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint. These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

#### Versions

- A** High Efficiency
- E** High efficiency low noise
- U** Very high efficiency
- N** Very high efficiency low noise

- Unit with 2 or 3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- An intermediate plate heat exchanger provides two circuits: a glycol circuit, where glycol is added to protect the chiller's coils from freezing, and the chilled water circuit without glycol.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.

- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- fans inverter
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.
- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote

control max. 6 units in RS485 network with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **FB1:** Air filter;
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

#### Accessories factory fitted only

- **KRS:** Evaporator trace heating
- **RIFNSM:** Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
- **GP:** Anti-intrusion grids.

## Accessories compatibility

Mod. NSM	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
AER485P1		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)
AERWEB300		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AVX	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Accessories factory fitted only																	
KRS	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
RIFNSM		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902	4202	4502
GP	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
AK	(2)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		4802	5202	5602	6002	6402	6903	7203	8403	9603							
AER485P1		-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x3)	-(x3)	-(x3)	-(x3)							
AERWEB300		*	*	*	*	*	*	*	*	*							
PRV3		*	*	*	*	*	*	*	*	*							
MULTICHILLER		*	*	*	*	*	*	*	*	*							
AVX	(1)	*	*	*	*	*	*	*	*	*							
Accessories factory fitted only																	
KRS	(1)	*	*	*	*	*	*	*	*	*							
RIFNSM		4802	5202	5602	6002	6402	6903	7203	8403	9603							
GP	(1)	*	*	*	*	*	*	*	*	*							
AK	(2)	*	*	*	*	*	*	*	*	*							

(1) Accessories to be defined for compatibility

(2) The accessory is only available for the "E/N" silenced versions

(x2) Indicates the amount to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description												
<b>1,2,3</b>	<b>NSM</b>												
<b>4,5,6,7</b>	<b>Size</b> 1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202 3402-3602-3902-4202-4502-4802-5202-5602-6002-6402 6903-7203-8403-9603												
<b>8</b>	<b>Operational limits</b> <b>W</b> Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)												
<b>9</b>	<b>Model</b> <b>B</b> Free cooling Glycol Free <b>G</b> Free cooling Glycol Free Plus (3)												
<b>10</b>	<b>Versions</b> <b>A</b> High efficiency <b>E</b> Low noise high efficiency <b>U</b> Very high efficiency <b>N</b> Low noise very high efficiency												
<b>11</b>	<table border="0"> <tr> <td><b>Condensing coils</b></td><td><b>Free cooling water coils</b></td></tr> <tr> <td>° Aluminium microchannel</td><td>Copper Aluminium</td></tr> <tr> <td><b>O</b> Painted aluminium microchannel</td><td>Painted Aluminium Copper</td></tr> <tr> <td><b>R</b> Copper - Copper (3)</td><td>Copper Copper</td></tr> <tr> <td><b>S</b> Copper - Thinned (3)</td><td>Copper - Thinned</td></tr> <tr> <td><b>V</b> Epoxy paint (only free cooling coil)(3)</td><td>Epoxy paint (only free cooling coil)</td></tr> </table>	<b>Condensing coils</b>	<b>Free cooling water coils</b>	° Aluminium microchannel	Copper Aluminium	<b>O</b> Painted aluminium microchannel	Painted Aluminium Copper	<b>R</b> Copper - Copper (3)	Copper Copper	<b>S</b> Copper - Thinned (3)	Copper - Thinned	<b>V</b> Epoxy paint (only free cooling coil)(3)	Epoxy paint (only free cooling coil)
<b>Condensing coils</b>	<b>Free cooling water coils</b>												
° Aluminium microchannel	Copper Aluminium												
<b>O</b> Painted aluminium microchannel	Painted Aluminium Copper												
<b>R</b> Copper - Copper (3)	Copper Copper												
<b>S</b> Copper - Thinned (3)	Copper - Thinned												
<b>V</b> Epoxy paint (only free cooling coil)(3)	Epoxy paint (only free cooling coil)												
<b>12</b>	<b>Fans</b> <b>J</b> Inverter												
<b>13</b>	<b>Power supply</b> ° 400V/3/50Hz												
<b>14-15</b>	<b>Integrated hydronic kit</b> <b>00</b> Without hydronic kit												

(3) The free cooling plus models can have coils only in options "om" and "O"

NSMW - BA			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
V/ph/Hz			400V/3/50Hz													
25°C / 20°C	Cooling capacity	(1)	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
	Total input power	(1)	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
	EER	(1)		3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,80	3,84	3,92	3,86
	Water flow rate	(1)	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
	Pressure drop	(1)	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110
25°C	Cooling capacity	(2)	kW	303	276	281	292	360	363	367	437	441	454	456	541	542
	Total input power	(2)	kW	22,6	22,6	22,6	22,6	29,7	29,7	29,7	38,6	38,6	38,7	38,7	44,8	44,8
	EER	(2)		13,43	12,22	12,46	12,93	12,14	12,23	12,36	11,32	11,43	11,73	11,79	12,07	12,11
	Water flow rate	(2)	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
	Pressure drop	(2)	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110

NSMW - BA				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
	Total input power	(1)	kW	216	228	244	260	281	295	319	343	373	388	442	512
	EER	(1)		3,95	3,87	3,92	3,90	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
	Water flow rate	(1)	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
	Pressure drop	(1)	kPa	128	137	148	165	155	146	171	190	126	141	111	144
25°C	Cooling capacity	(2)	kW	598	599	674	675	675	748	802	807	1038	1039	1134	1263
	Total input power	(2)	kW	49,8	49,8	55,0	55,0	55,0	60,0	64,9	64,9	84,7	84,7	93,7	103,6
	EER	(2)		12,03	12,04	12,26	12,28	12,28	12,46	12,36	12,43	12,26	12,27	12,10	12,18
	Water flow rate	(2)	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
	Pressure drop	(2)	kPa	128	137	148	165	155	146	171	190	126	141	111	144

NSMW - GA				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
	Total input power	(1)	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
	EER	(1)		3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
	Water flow rate	(1)	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
	Pressure drop	(1)	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108
25°C	Cooling capacity	(2)	kW	314	287	293	305	377	380	384	459	463	478	481	570	572
	Total input power	(2)	kW	23,0	22,9	22,9	23,0	30,1	30,1	30,1	39,2	39,2	39,3	39,3	45,5	45,5
	EER	(2)		13,67	12,52	12,77	13,30	12,51	12,60	12,74	11,72	11,84	12,18	12,25	12,53	12,58
	Water flow rate	(2)	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
	Pressure drop	(2)	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108

NSMW - GA			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
25°C / 20°C	Cooling capacity	(1)	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
	Total input power	(1)	kW	218	230	247	262	284	298	322	346	377	392	447	517
	EER	(1)		3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
	Water flow rate	(1)	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
	Pressure drop	(1)	kPa	127	136	147	164	153	144	170	188	125	140	110	143
25°C	Cooling capacity	(2)	kW	628	629	708	709	785	839	844	1089	1090	1192	1325	
	Total input power	(2)	kW	50,5	50,5	55,8	55,8	55,8	61,0	66,0	66,0	86,0	86,0	95,1	105,2
	EER	(2)		12,43	12,45	12,68	12,70	12,70	12,86	12,72	12,80	12,67	12,68	12,54	12,59
	Water flow rate	(2)	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
	Pressure drop	(2)	kPa	127	136	147	164	153	144	170	188	125	140	110	143

#### Date

(1) Water evaporator 25°C/20°C, External air 35°C

(2) Water evaporator 25°C; External air 12°C

		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
<b>Electrical data</b>														
Total input current (cooling)	BA (3) A	146	166	187	200	208	224	242	258	277	290	306	327	348
	GA (3) A	147	167	188	201	210	226	244	260	279	292	308	330	351
Total input current (freecooling)	BA (3) A	36,1	36,1	36,1	36,1	47,0	47,0	47,0	61,5	61,5	61,7	61,7	71,2	71,2
	GA (3) A	36,6	36,6	36,6	36,6	47,7	47,7	47,7	62,3	62,3	62,5	62,5	72,1	72,1
Maximum current (FLA)	Alls (3) A	206	228	253	265	289	306	324	362	384	400	415	449	472
Starting current (LRA)	Alls (3) A	279	269	308	346	362	395	406	457	472	490	500	536	551
<b>Compressors - Screw</b>														
Compressors / Circuit	Alls n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls Type	R134a												
<b>Heat exchanger system side - Shell&amp;tube</b>														
Heat exchanger	Alls n°	1												
<b>Axial fans</b>														
Fan	Alls n°	8	8	8	8	10	10	10	12	12	12	12	14	14
<b>Sound data (cooling)</b>														
Sound power level	Alls dB(A)	97,1	97,1	97,4	97,3	98,1	98,0	97,8	98,4	98,4	98,7	99,3	100,4	100,8

		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
<b>Electrical data</b>													
Total input current (cooling)	BA (3) A	362	377	416	453	478	494	531	567	646	683	740	854
	GA (3) A	365	381	420	456	482	498	536	571	652	688	747	861
Total input current (freecooling)	BA (3) A	78,9	78,9	87,1	87,1	87,1	95,0	102,6	102,6	134,1	134,1	148,7	164,3
	GA (3) A	80,0	80,0	88,3	88,3	88,3	96,4	104,1	104,1	136,0	136,0	150,8	166,6
Maximum current (FLA)	Alls (3) A	504	527	569	602	619	645	698	737	877	910	976	1111
Starting current (LRA)	Alls (3) A	590	611	643	665	857	883	963	990	866	888	1072	1204
<b>Compressors - Screw</b>													
Compressors / Circuit	Alls n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
Refrigerant	Alls Type	R134a											
<b>Heat exchanger system side - Shell&amp;tube</b>													
Heat exchanger	Alls n°	1											
<b>Axial fans</b>													
Fan	Alls n°	16	16	18	18	18	20	22	22	28	28	30	34
<b>Sound data (cooling)</b>													
Sound power level	Alls dB(A)	100,8	100,4	100,8	100,9	101,4	102,3	102,3	101,9	103,7	103,8	105,0	104,8

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

## Technical data

NSMW - BE			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
V/ph/Hz			400V/3/50Hz												
25°C / 20°C	Cooling capacity	(1) kW	315	362	415	456	478	524	551	599	626	641	667	735	772
	Total input power	(1) kW	75	91	101	112	120	127	138	145	156	161	169	178	192
	EER	(1)	4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
	Water flow rate	(1) l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
	Pressure drop	(1) kPa	81	100	101	95	104	105	116	127	139	121	125	96	106
25°C	Cooling capacity	(2) kW	260	228	276	285	287	343	345	389	391	402	403	469	471
	Total input power	(2) kW	10,6	10,6	13,4	13,5	13,5	19,2	19,2	21,9	21,9	22,1	22,1	23,9	23,9
	EER	(2)	24,39	21,44	20,58	21,09	21,21	17,84	17,94	17,79	17,87	18,15	18,22	19,61	19,67
	Water flow rate	(2) l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
	Pressure drop	(2) kPa	81	100	101	95	104	105	116	127	139	121	125	96	106

NSMW - BE			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
25°C / 20°C	Cooling capacity	(1)	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	/	/
	Total input power	(1)	kW	202	210	228	241	260	275	296	318	350	364	/	/
	EER	(1)		4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	/	/
	Water flow rate	(1)	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	/	/
	Pressure drop	(1)	kPa	121	135	142	152	170	81	128	110	119	123	/	/
25°C	Cooling capacity	(2)	kW	515	578	588	633	634	693	742	788	880	924	/	/
	Total input power	(2)	kW	25,6	31,3	31,5	33,1	33,1	38,4	41,1	43,7	46,8	48,5	/	/
	EER	(2)		20,11	18,44	18,68	19,09	19,12	18,02	18,06	18,01	18,79	19,06	/	/
	Water flow rate	(2)	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	/	/
	Pressure drop	(2)	kPa	121	135	142	152	170	81	128	110	119	123	/	/

NSMW - GE			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
25°C / 20°C	Cooling capacity	(1)	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
	Total input power	(1)	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
	EER	(1)		4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
	Water flow rate	(1)	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
	Pressure drop	(1)	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104
25°C	Cooling capacity	(2)	kW	270	237	288	298	300	358	360	406	408	419	421	491	492
	Total input power	(2)	kW	10,8	10,7	13,5	13,7	13,7	19,4	19,4	22,1	22,1	22,3	22,3	24,1	24,1
	EER	(2)		25,10	22,15	21,24	21,80	21,93	18,48	18,59	18,39	18,48	18,80	18,87	20,33	20,39
	Water flow rate	(2)	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
	Pressure drop	(2)	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104

NSMW - GE			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
25°C / 20°C	Cooling capacity	(1)	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	/	/
	Total input power	(1)	kW	204	212	230	244	263	278	300	321	354	368	/	/
	EER	(1)		4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	/	/
	Water flow rate	(1)	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	/	/
	Pressure drop	(1)	kPa	120	134	140	150	168	80	127	109	118	122	/	/
	25°C	Cooling capacity	(2)	kW	538	604	615	661	662	724	775	822	920	966	/
Total input power		(2)	kW	25,8	31,6	31,7	33,4	33,4	38,8	41,4	44,1	46,8	48,9	/	/
EER		(2)		20,80	19,11	19,38	19,78	19,80	18,67	18,70	18,64	19,65	19,74	/	/
Water flow rate		(2)	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	/	/
Pressure drop		(2)	kPa	120	134	140	150	168	80	127	109	118	122	/	/

### Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	BE	(3)	A	134	158	175	189	199	210	227	240	258	272	288	303	325
	GE	(3)	A	134	159	176	190	201	211	229	242	260	274	291	306	328
Total input current (freecooling)	BE	(3)	A	16,7	16,6	21,0	21,2	21,2	30,5	30,5	34,5	34,5	34,9	34,9	37,6	37,6
	GE	(3)	A	16,8	16,8	21,2	21,4	21,4	30,8	30,8	34,8	34,8	35,2	35,2	37,9	37,9
Maximum current (FLA)	Alls	(3)	A	207	229	265	277	289	322	339	372	394	410	426	457	480
Starting current (LRA)	Alls	(3)	A	279	269	317	354	362	403	415	466	480	499	509	545	560
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	8	8	10	10	10	12	12	14	14	14	14	16	16
Sound data (cooling)																
Sound power level	Alls		dB(A)	92.7	93.0	93.4	93.6	93.8	93.4	92.8	92.7	92.5	94.9	96.4	97.6	98.4

			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data															
Total input current (cooling)	BE	(3)	A	339	348	388	421	443	460	493	526	601	631	/	/
	GE	(3)	A	342	351	392	425	448	464	497	531	607	636	/	/
Total input current (freecooling)	BE	(3)	A	40,1	48,8	49,1	51,6	51,6	61,1	65,0	69,0	73,4	75,9	/	/
	GE	(3)	A	40,5	49,2	49,4	52,0	52,0	61,5	65,5	69,5	73,9	76,5	/	/
Maximum current (FLA)	Alls	(3)	A	512	550	583	631	648	681	730	779	894	936	/	/
Starting current (LRA)	Alls	(3)	A	598	628	651	687	879	906	980	1016	875	905	/	/
Compressors - Screw															
Compressors / Circuit	Alls	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/	
Refrigerant	Alls	Type	R134a									/	/		
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls	n°	1	1	1	1	1	2	2	2	2	2	/	/	
Axial fans															
Fan	Alls	n°	18	20	20	22	22	24	26	28	30	32	/	/	
Sound data (cooling)															
Sound power level	Alls	dB(A)	97.6	96.4	96.7	97.0	98.9	100.3	99.5	98.7	98.7	98.9	/	/	

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

## Technical data

NSMW - BU			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	
			V/ph/Hz													
			400V/3/50Hz													
25°C / 20°C	Cooling capacity	(1)	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
	Total input power	(1)	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
	EER	(1)		3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
	Water flow rate	(1)	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
25°C	Pressure drop	(1)	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117
	Cooling capacity	(2)	kW	319	287	345	367	369	433	436	488	506	507	538	595	597
	Total input power	(2)	kW	23,6	23,5	29,6	31,5	31,5	38,6	38,6	44,5	44,7	44,7	44,8	49,8	49,8
	EER	(2)		13,52	12,20	11,67	11,64	11,72	11,22	11,30	10,96	11,31	11,35	12,01	11,96	12,00
	Water flow rate	(2)	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
	Pressure drop	(2)	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117

NSMW - BU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	/	/
	Total input power	(1)	kW	216	228	243	260	276	293	317	341	372	388	/	/
	EER	(1)		3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	/	/
	Water flow rate	(1)	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	/	/
	Pressure drop	(1)	kPa	134	133	156	166	188	112	142	128	131	135	/	/
25°C	Cooling capacity	(2)	kW	647	743	746	796	797	885	938	990	1126	1177	/	/
	Total input power	(2)	kW	54,7	63,8	63,8	68,7	68,7	79,0	84,0	89,0	98,2	103,1	/	/
	EER	(2)		11,83	11,65	11,69	11,60	11,61	11,20	11,17	11,13	11,46	11,41	/	/
	Water flow rate	(2)	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	/	/
	Pressure drop	(2)	kPa	134	133	156	166	188	112	142	128	131	135	/	/

NSMW - GU				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
	Total input power	(1)	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
	EER	(1)		3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
	Water flow rate	(1)	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
	Pressure drop	(1)	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116
25°C	Cooling capacity	(2)	kW	331	300	360	385	388	455	458	510	531	533	567	624	626
	Total input power	(2)	kW	23,9	23,9	30,0	32,0	32,0	39,2	39,2	45,1	45,4	45,4	45,5	50,5	50,5
	EER	(2)		13,81	12,56	11,98	12,04	12,13	11,61	11,69	11,30	11,70	11,73	12,47	12,36	12,40
	Water flow rate	(2)	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
	Pressure drop	(2)	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116

NSMW - GU				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	/	/
	Total input power	(1)	kW	218	230	245	262	278	296	320	344	375	392	/	/
	EER	(1)		3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	/	/
	Water flow rate	(1)	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	/	/
	Pressure drop	(1)	kPa	133	132	155	165	187	111	141	127	130	134	/	/
25°C	Cooling capacity	(2)	kW	676	780	783	834	835	931	984	1036	1185	1236	/	/
	Total input power	(2)	kW	55,5	64,7	64,7	69,7	69,7	80,1	85,2	90,3	99,6	104,6	/	/
	EER	(2)		12,18	12,05	12,11	11,97	11,98	11,62	11,54	11,48	11,90	11,81	/	/
	Water flow rate	(2)	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	/	/
	Pressure drop	(2)	kPa	133	132	155	165	187	111	141	127	130	134	/	/

### Date

(1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling

(2) Water evaporator 25°C; External air 12°C

				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Total input current (cooling)	BU	(3)	A	148	170	192	204	212	229	244	263	279	291	305	326	345
	GU	(3)	A	149	171	194	205	214	231	246	265	281	294	308	328	347
Total input current (freecooling)	BU	(3)	A	37,3	37,3	46,8	50,1	50,1	61,5	61,5	70,6	71,0	71,0	71,2	78,9	78,9
	GU	(3)	A	37,9	37,8	47,5	50,8	50,8	62,3	62,3	71,6	72,0	72,0	72,1	80,0	80,0
Maximum current (FLA)	Alls	(3)	A	207	229	265	280	292	322	339	372	395	410	426	457	480
Starting current (LRA)	Alls	(3)	A	279	269	317	357	365	403	415	466	481	499	509	545	560
Compressors - Screw																
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls		Type	R134a												
Heat exchanger system side - Shell&tube																
Heat exchanger	Alls		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Axial fans																
Fan	Alls		n°	8	8	10	10	10	12	12	14	14	14	14	16	16
Sound data (cooling)																
Sound power level	Alls		dB(A)	97,3	97,4	98,4	98,3	98,4	98,8	98,7	99,1	99,1	99,5	100,1	101,2	101,6

			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data															
Total input current (cooling)	BU	(3)	A	363	378	414	454	472	493	529	566	639	677	/	/
	GU	(3)	A	366	381	418	457	475	497	533	570	644	682	/	/
Total input current (freecooling)	BU	(3)	A	86,6	100,7	100,7	108,3	108,3	125,7	133,4	141,2	155,6	163,2	/	/
	GU	(3)	A	87,8	102,0	102,0	109,8	109,8	127,3	135,2	143,1	157,6	165,4	/	/
Maximum current (FLA)	Alls	(3)	A	512	550	583	631	648	683	731	779	899	941	/	/
Starting current (LRA)	Alls	(3)	A	598	628	651	687	879	909	982	1016	880	910	/	/
Compressors - Screw															
Compressors / Circuit	Alls	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	/	/	
Refrigerant	Alls	Type	R134a												
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls	n°	1	1	1	1	1	2	2	2	2	2	/	/	
Axial fans															
Fan	Alls	n°	18	20	20	22	22	24	26	28	30	32	/	/	
Sound data (cooling)															
Livello di potenza sonora	Alls	dB(A)	101,5	101,4	101,4	101,8	102,3	103,2	103,1	102,9	104,0	104,3	/	/	

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.



## Technical data

NSMW - BN			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
			V/ph/Hz												
25°C / 20°C	Cooling capacity	(1)	kW	324	376	428	473	497	538	567	614	643	659	687	751
	Total input power	(1)	kW	74	88	99	109	116	124	134	142	152	157	163	174
	EER	(1)		4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32
	Water flow rate	(1)	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528
	Pressure drop	(1)	kPa	74	93	87	102	113	110	122	111	122	128	125	100
25°C	Cooling capacity	(2)	kW	266	278	329	334	337	384	387	439	441	442	467	523
	Total input power	(2)	kW	12,2	13,5	19,1	19,1	19,9	21,9	21,9	23,8	23,8	23,8	23,9	29,3
	EER	(2)		21,73	20,57	17,29	17,53	16,94	17,58	17,68	18,41	18,50	18,55	19,52	17,83
	Water flow rate	(2)	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528
	Pressure drop	(2)	kPa	74	93	87	102	113	110	122	111	122	128	125	100

NSMW - BN			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	852	881	969	1033	1115	1198	1263	1329	/	/	/
	Total input power	(1)	kW	195	207	218	232	249	265	288	311	/	/	/
	EER	(1)		4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	/	/	/
	Water flow rate	(1)	l/h	147047	152087	167278	178230	192448	206685	217997	229339	/	/	/
	Pressure drop	(1)	kPa	117	125	101	93	102	75	92	92	/	/	/
25°C	Cooling capacity	(2)	kW	617	618	727	770	828	880	887	889	/	/	/
	Total input power	(2)	kW	32,8	32,8	41,1	43,7	45,7	47,7	47,7	47,7	/	/	/
	EER	(2)		18,81	18,85	17,68	17,59	18,12	18,46	18,60	18,64	/	/	/
	Water flow rate	(2)	l/h	147047	152087	167278	178230	192448	206685	217997	229339	/	/	/
	Pressure drop	(2)	kPa	117	125	101	93	102	75	92	92	/	/	/

NSMW - GN			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
25°C / 20°C	Cooling capacity	(1)	kW	323	374	426	471	494	535	564	611	640	656	683	746
	Total input power	(1)	kW	74	89	100	110	117	125	136	143	153	158	164	175
	EER	(1)		4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26
	Water flow rate	(1)	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821
	Pressure drop	(1)	kPa	74	92	86	101	112	109	121	110	121	127	123	99
25°C	Cooling capacity	(2)	kW	279	292	346	351	354	404	407	461	463	464	491	549
	Total input power	(2)	kW	12,4	13,7	19,2	19,2	20,0	22,1	22,1	24,1	24,1	24,1	24,1	29,5
	EER	(2)		22,53	21,40	18,03	18,27	17,67	18,32	18,43	19,17	19,27	19,31	20,33	18,59
	Water flow rate	(2)	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821
	Pressure drop	(2)	kPa	74	92	86	101	112	109	121	110	121	127	123	99

NSMW - GN			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
25°C / 20°C	Cooling capacity	(1)	kW	848	877	965	1028	1110	1192	1257	1322	/	/	/
	Total input power	(1)	kW	197	209	220	234	251	268	291	314	/	/	/
	EER	(1)		4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	/	/	/
	Water flow rate	(1)	l/h	146331	151317	166517	177452	191576	205700	216918	228136	/	/	/
	Pressure drop	(1)	kPa	116	124	100	92	101	74	91	91	/	/	/
25°C	Cooling capacity	(2)	kW	647	649	764	809	870	925	932	934	/	/	/
	Total input power	(2)	kW	33,1	33,1	41,4	44,1	46,1	48,1	48,1	48,1	/	/	/
	EER	(2)		19,56	19,61	18,44	18,34	18,87	19,22	19,37	19,41	/	/	/
	Water flow rate	(2)	l/h	146331	151317	166517	177452	191576	205700	216918	228136	/	/	/
	Pressure drop	(2)	kPa	116	124	100	92	101	74	91	91	/	/	/

### Date

- (1) Water evaporator 25°C/20°C, External air 35°C; 0% Free-cooling  
(2) Water evaporator 25°C; External air 12°C

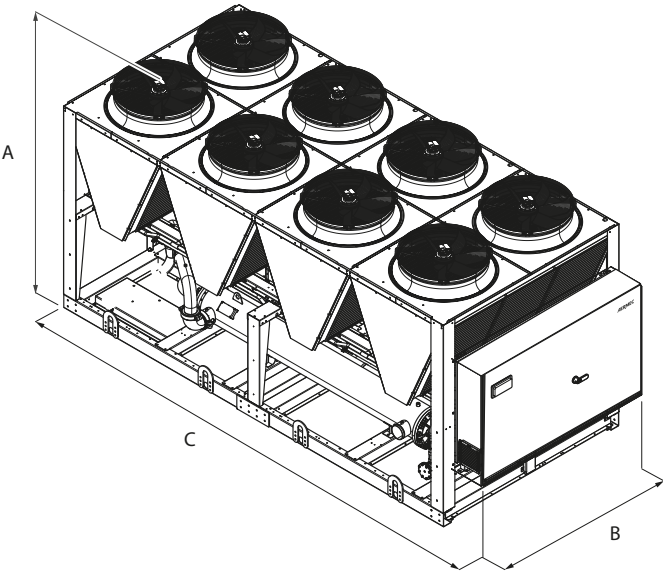
			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
<b>Electrical data</b>															
Total input current (cooling)	BN	(3) A	132	154	172	184	192	206	222	235	252	265	280	297	313
	GN	(3) A	132	155	173	185	194	207	224	237	254	267	282	300	316
Total input current (freecooling)	BN	(3) A	19,1	21,2	30,3	30,3	31,5	34,5	34,5	37,5	37,5	37,5	37,6	45,8	48,3
	GN	(3) A	19,2	21,4	30,5	30,5	31,7	34,8	34,8	37,8	37,8	37,8	37,9	46,1	48,6
Maximum current (FLA)	Alls	(3) A	215	240	280	292	305	332	349	381	404	419	434	472	503
Starting current (LRA)	Alls	(3) A	288	280	332	369	378	414	425	475	490	508	518	559	583
<b>Compressors - Screw</b>															
Compressors / Circuit	Alls	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Alls	Type	R134a												
<b>Heat exchanger system side - Shell&amp;tube</b>															
Heat exchanger	Alls	n°	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>Axial fans</b>															
Fan	Alls	n°	10	10	12	12	12	14	14	16	16	16	16	18	20
<b>Sound data (cooling)</b>															
Sound power level	Alls	dB(A)	92,8	93,1	93,9	93,8	93,9	93,7	93,2	93,0	92,8	94,3	96,0	97,9	98,7

			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603	
Electrical data															
Total input current (cooling)	BN	(3)	A	328	343	374	408	427	447	481	516	/	/	/	/
	GN	(3)	A	330	346	377	411	430	450	485	520	/	/	/	/
Total input current (freecooling)	BN	(3)	A	51,0	51,0	65,0	69,0	72,0	75,0	75,0	75,0	/	/	/	/
	GN	(3)	A	51,4	51,4	65,5	69,5	72,5	75,5	75,5	75,5	/	/	/	/
Maximum current (FLA)	Alls	(3)	A	541	564	624	667	693	719	758	797	/	/	/	/
Starting current (LRA)	Alls	(3)	A	627	642	692	723	924	945	1009	1034	/	/	/	/
Compressors - Screw															
Compressors / Circuit	Alls		n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	/	/	/	/
Refrigerant	Alls		Type	R134a							/	/	/	/	
Heat exchanger system side - Shell&tube															
Heat exchanger	Alls		n°	1	1	2	2	2	2	2	2	/	/	/	/
Axial fans															
Fan	Alls		n°	22	22	26	28	30	32	32	32	/	/	/	/
Sound data (cooling)															
Sound power level	Alls		dB(A)	97.9	96.8	97.0	97.3	98.7	100.1	99.5	98.7	/	/	/	/

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.





NSMW B- G				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
			E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
			N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

NSMW B- G				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Height	mm	A	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
			E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	/	/
			N	13090	13090	15470	16660	17850	19040	19040	19040	/	/	/	/

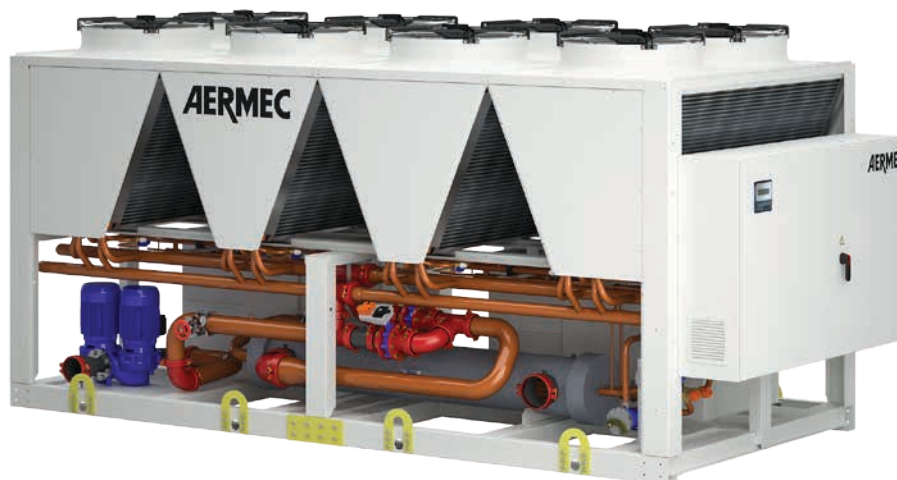
For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

# NSMI

1251/5202  
free cooling

HFC  
Refrigerant  
**R134a**

**Air/Water inverter chillers for outdoor installation with free cooling Screw compressors, shell and tube heat exchangers and axial fans**  
Cooling capacity 285 - 1160 kW



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS**
- **MICROCHANNEL COIL**
- **LOW ELECTRICAL CONSUMPTION**

## Features

The NSMI are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities. These are outdoor units with screw inverter compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint. These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving. Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

### Versions

**NSMI\_A** High efficiency  
**NSMI\_E** High efficiency low noise

- Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
- The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
- Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
- Standard differential pressure switch
- Possibility of integrated hydronic kit that encloses the main hydraulic components; it is available in different configurations with one or two pumps, with different static pressures available
- Silenced versions feature a special compressor jacket which ensures a further noise reduction of approximately 4dB
- Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
- DCPX series
- Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.

- Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation
- **Complete with latest generation Touch screen** allowing real time graphics visualization showing water and external air temperatures, pressures and requested load. Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
- The presence of a programmable timer allows setting time bands of operation and a possible second set-point
- The temperature control takes place with the integral proportional logic, based on the water output temperature.

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;

- **AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **FB1:** Air filter;
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.

- **AVX:** Spring anti-vibration mounts.
- **Accessories factory fitted only**
- **KRS:** Evaporator trace heating
- **KRSDS:** Electrical resistor for desuperheater
- **GP:** Anti-intrusion grids.

## Accessories compatibility

NSM - Free cooling	vers.	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
AER485P1		-(x1)	-(x1)	-(x1)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)	-(x2)
AERWEB300		*	*	*	*	*	*	*	*	*	*	*	*	*
PRV3		*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER		*	*	*	*	*	*	*	*	*	*	*	*	*
AVX	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Accessories factory fitted only</b>														
KRS	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*
KRS_DES	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*
GP	(1)	*	*	*	*	*	*	*	*	*	*	*	*	*

(1) Accessories to be defined for compatibility

(x2) Indicates the amount to order

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
1,2,3,4	<b>NSMI</b>
5,6,7,8	<b>Size</b> 1251-1601-1801 ( <b>single circuit</b> ) 2352-2652-2802-3202-3402-3802-4102-4402-4802-5202 ( <b>dual circuit</b> )
9	<b>Model</b>
	F Free cooling
	P Free cooling plus
10	<b>Heat recovery</b>
	° Without heat recovery
	D With desuperheater
11	<b>Version</b>
	A High efficiency
	E Low noise high efficiency
13	<b>Condensing coils</b>
	° Aluminium microchannel
	O Painted aluminium microchannel
	R Copper - Copper
	S Copper - Thinned
	V Epoxy paint (only free cooling coil)
14	<b>Fans</b>
	° Standard
	J Inverter
15	<b>Power supply</b>
	° 400V/3/50Hz magnet circuit breakers
16	<b>Integrated hydronic kit</b>
	00 Without hydronic kit
	PA Pumping unit (pump A)
	PB Pumping unit (pump B)
	PC Pumping unit (pump C)
	PD Pumping unit (pump D)
	PE Pumping unit (pump E)
	PF Pumping unit (pump F)
	PG Pumping unit (pump G)
	PH Pumping unit (pump H)
	PI Pumping unit (pump I)
	PJ Pumping unit (pump J)
	DA Pumping unit (pump A and stand-by pump)
	DB Pumping unit (pump B and stand-by pump)
	DC Pumping unit (pump C and stand-by pump)
	DD Pumping unit (pump D and stand-by pump)
	DE Pumping unit (pump E and stand-by pump)
	DF Pumping unit (pump F and stand-by pump)
	DG Pumping unit (pump G and stand-by pump)
	DH Pumping unit (pump H and stand-by pump)
	DI Pumping unit (pump I and stand-by pump)
	DJ Pumping unit (pump J and stand-by pump)
	<b>Operation of pumps in parallel</b>
	TF Double static, pressure pump (pump F)
	TG Double static, pressure pump (pump G)
	TH Double static, pressure pump (pump h)
	TI Double static, pressure pump (pump i)
	TJ Double static, pressure pump (pump J)

**Free cooling water coils**  
Copper Aluminium  
Painted Aluminium Copper  
Copper Copper  
Copper - Thinned  
Epoxy paint (only free cooling coil)

## Technical data

NSMI - FA/FE			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
V/ph/Hz			400V/3/50Hz												
12°C/7°C	Cooling capacity	(1) kW	286,5	385,6	455,6	496,5	587,5	649,6	718,4	784,3	832,8	929,0	989,0	1096	1164
	Total input power	(1) kW	96,6	126,7	157,5	177,7	206,3	221,2	244,7	272,7	280,5	324,3	343,8	368,4	417,3
	EER	(1)	2,97	3,04	2,89	2,79	2,85	2,94	2,94	2,88	2,97	2,86	2,88	2,98	2,79
	Water flow rate	(1) l/h	49230	66245	78283	85309	100931	111607	123424	134748	143089	159614	169917	188560	200240
	Pressure drop	(1) kPa	51	78	75	48	67	68	76	46	54	68	79	80	90
15°C	Cooling capacity	(2) kW	331	359	443	450	539	622	634	644	727	817	900	992	1002
	Total input power	(2) kW	15	15	19	19	22	26	26	26	30	34	37	41	41
	EER	(2)	22,1	23,9	23,6	24,0	24,0	23,7	24,2	24,5	24,2	24,2	24,0	24,0	24,3
	Water flow rate	(2) l/h	49230	66245	78283	85309	100931	111607	123424	134748	143089	159614	169917	188560	200240
	Pressure drop	(2) kPa	80	121	127	88	109	108	124	94	99	108	125	127	143

### Date

- (1) Water evaporator 12°C/7°C, External air 35°C; 0% Free-cooling  
(2) Water evaporator 15°C; External air 2°C; 100% Free-cooling

NSMI - PA/PE			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
V/ph/Hz			400V/3/50Hz												
12°C/7°C	Cooling capacity	(1) kW	285,5	383,5	453,4	493,5	584,0	646,4	714,7	778,5	827,8	923,5	983,6	1090,1	1156,6
	Total input power	(1) kW	97,4	127,8	158,9	179,7	208,6	223,4	247,5	275,8	283,4	327,8	347,4	372,4	421,9
	EER	(1)	2,93	3,00	2,85	2,75	2,80	2,89	2,89	2,82	2,92	2,82	2,83	2,93	2,74
	Water flow rate	(1) l/h	49048	65887	77902	84789	100332	111060	122801	133758	142233	158667	168998	187500	198930
	Pressure drop	(1) kPa	51	77	74	47	66	67	75	45	53	67	78	79	89
15°C	Cooling capacity	(2) kW	353	385	475	483	578	667	680	689	779	875	965	1063,0	1074,1
	Total input power	(2) kW	15	15	19	19	23	27	27	27	30	34	38	41,9	41,9
	EER	(2)	23,2	25,3	25,0	25,4	25,3	25,0	25,5	25,9	25,6	25,5	25,3	25,4	25,6
	Water flow rate	(2) l/h	49048	65887	77902	84789	100332	111060	122801	133758	142233	158667	168998	187500	198930
	Pressure drop	(2) kPa	80	120	126	87	108	107	123	93	97	107	123	125	141

### Date

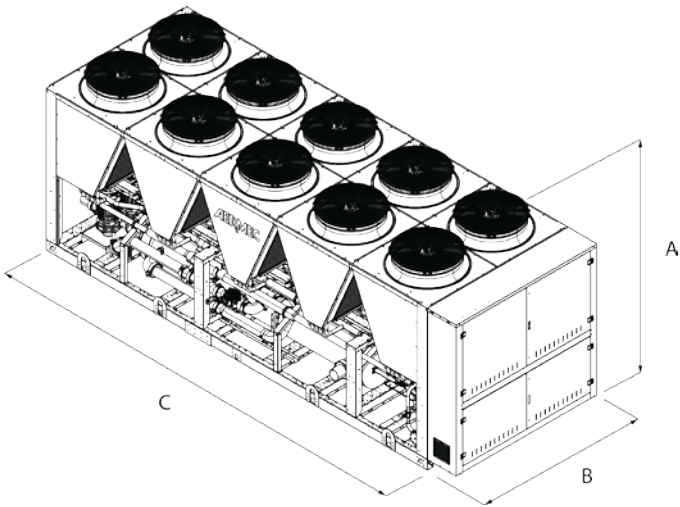
- (1) Water evaporator 12°C/7°C, External air 35°C; 0% Free-cooling  
(2) Water evaporator 15°C; External air 2°C; 100% Free-cooling

			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	
Electrical data																
Total input current (cooling)	FA/FE	(3)	A	166	212	261	309	356	381	417	456	470	547	580	644	692
	PA/PE	(3)	A	168	214	263	312	360	385	421	461	474	553	585	644	692
Total input current (freecooling)	FA/FE	(3)	A	30	30	38	38	46	53	53	53	61	68	76	84	84
	PA/PE	(3)	A	31	31	38	38	46	54	54	54	61	69	77	84	84
Maximum current (FLA)		(3)	A	260	300	388	453	486	534	534	582	671	727	775	874	917
Starting current (LRA)		(3)	A	60	60	68	582	618	666	666	790	879	1008	1081	1180	1335
Compressors - Screw																
Compressors / Circuit			n°	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant			Type	R134a												
Heat exchanger system side																
Heat exchanger			Type/n°	Shell&tube/1												
Axial fans																
Fan	All	Type/n°	8	8	10	10	12	14	14	14	16	18	20	22	22	
Air flow rate (cooling)	All	m³/h	109600	109600	137000	137000	164400	191800	191800	191800	219200	246600	274000	301400	301400	
Sound data (cooling)																
Sound power level	FA/PA	dB(A)	98	99	99	99	100	101	101	101	101	101	102	104	104	
	FE/PE	dB(A)	94	96	96	96	96	97	97	98	98	98	99	100	100	

(3) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



NSMI FA/FE - PA/PE				1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202
Height	mm	A	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
Width	mm	B	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
Length	mm	C	All	4760	4760	5950	6400	7140	8330	8330	8330	9520	10710	11900	13090	13090

# **WATER / WATER CHILLERS AND HEAT PUMPS**

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.

The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.

The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

WATER / WATER CHILLERS AND HEAT PUMPS		Air flow-rate (m³/h)	Cooling cap. (kW)	Heating cap. (kW)	Page
<b>Units with scroll compressors</b>					
VENICE	Chiller	-	6,9-9,7	-	398
VENICE H	Reversible heat pump	-	6,9-9,7	7,7-10,8	400
WRL 026-161	Chiller	-	6,2-44,7	-	402
WRL 026H-161H	Reversible heat pump	-	6,2-41,2	7,5-47,9	406
WRL 180-650	Chiller	-	50,0-173,0	-	410
WRL 180H-650H	Reversible heat pump	-	45,0-157,0	53,0-184,0	414
NXW 0500-1650	Chiller	-	111-510	-	418
NXW 0500H-1650H	Reversible heat pump	-	105,7-476,2	125,6-566,5	422
<b>Units with screw compressors</b>					
WS	Chiller reversible water side	-	134,5-699,0	-	426
HWS	Chiller reversible water side	-	146,4-712,0	-	430
WSH 0701-2502	Reversible heat pump	-	166,0-668,0	190,0-819,0	434
WF 2512-6412	Chiller reversible water side	-	547-1549	-	438
HWF 2512-6412	Chiller reversible water side	-	540-1524	-	442
new WFG 2512-6412	Chiller reversible water side	-	547-1549	-	446
<b>Units with centrifugal compressors</b>					
WMX - WMG	Chiller (WMX with R134a - WMG with R1234ze)		280-324		450
TW 110	Chiller	-	284	-	452
new WTX	Chiller		280-324		454



## Venice

Water-cooled unit  
Cooling capacity 6 - 9kW

### R407C



Aermec  
participates in the EUROVENT  
Program LCP  
The products of interest can be found  
on the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



### Features

Venice is the range of water cooled chillers operating with refrigerant R407C. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, easy of installation, low noise.

- All versions are equipped with circulation pump, water tank, water filter and safety valve
- Complies with EEC Safety Directive (CE)
- High efficiency scroll compressors
- Differential pressure switch on the external circuit standard on heat pumps
- Fluxostat standard on installation circuit
- Modular microprocessor control system
- Straightforward intuitive control panel
- High efficiency plate type heat exchangers
- Compact size
- Metallic protective cabinet with rustproof polyester paint
- Degree of protection IP 24

### Accessories

- **PR3:** Remote control panel with ON/OFF, operating mode selection (cooling / heating) and general alarm indication.
- **VP:** Pressure switch valve complete with con-

nections, piloted directly in relation to condensation pressure; the valve modulates the volume of water needed to cool the condenser, thereby maintaining the condensation tempe-

- rature unchanged.
- **VT:** Rubber anti-vibration mounts.
- **VT M:** Spring anti-vibration mounts.

#### Compatibility of accessories

Venice	PR 3	VP 14	VP 15	VT 7	VT M
20	•	•		•	•
25	•		•	•	•
30	•		•	•	•

## Technical data

VENICE			20	25	30
		V/ph/Hz		230V~50Hz	
12°C / 7°C	Cooling capacity	(1) kW	6,94	8,24	9,75
	Total input power	(1) kW	1,74	1,98	2,38
	EER	(1)	3,99	4,16	4,10
	ESEER	(1)	4,59	4,58	4,58
	Cooling Energy Class Eurovent	(1)	D	D	D
	Evaporator water flow rate	(1) l/h	1194	1417	1677
	Useful head system side circuit	(1) kPa	63	61	69
	Condenser water consumption	(1) l/h	1500	1770	2095
	Pressure drops	(1) kPa	18	13	12

### Data (14511:2013)

(1) Water evaporator (in/out) 12°C/7°C; Water condenser (in/out) 30°C/35°C

			20	25	30
<b>Electrical data</b>					
230V	Total input current (cooling)	(2) A	10,1	11,8	13,1
	Maximum current (FLA)	(2) A	15	18	24
	Starting current (LRA)	(2) A	61	76	100
<b>Scroll Compressor</b>					
Compressors / Circuit		n°/n°	1/1	1/1	1/1
Refrigerant		Type		R407C	
<b>Heat exchanger system side</b>					
Exchanger		Type/n°		Plate/1	
hydraulic connections (In/Out)		Type/Ø		male Gas/1"	
<b>Heat exchanger source side</b>					
Exchanger		Type/n°		Plate/1	
hydraulic connections (In/Out)		Type/Ø		male Gas/1"	
<b>Sound data (cooling)</b>					
Sound power level		dB(A)	56	56	57
Sound pressure level		dB(A)	48	48	49

(2) Including circulator pump power consumption

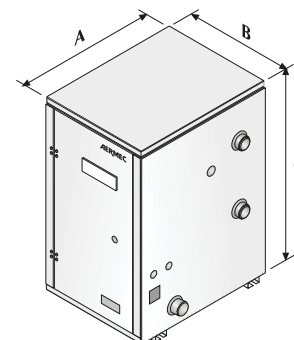
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

VENICE		20	25	30
A	mm	504	504	504
B	mm	404	404	404
C	mm	625	625	625
Weight	kg	100	103	105



Cod.: SVNC20\_30UY.00 / 1602

## Venice H

Water-cooled reversible heat pumps units  
Cooling capacity 6 - 9kW  
Heating capacity 7 - 10kW

R407C



Aermec participates in the EUROVENT Program LCP  
The products of interest can be found on the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



### Features

- Versions:  
**Venice H:** heat pump
- Cycle reversal on refrigerant circuit
- All versions are equipped with circulation pump, water tank, water filter and safety valve
- Complies with EEC Safety Directive (CE)
- High efficiency scroll compressors
- Differential pressure switch on the external circuit standard on heat pumps
- Fluxostat standard on installation circuit
- Modular microprocessor control system
- Straightforward intuitive control panel
- High efficiency plate type heat exchangers
- Compact size
- Metallic protective cabinet with rustproof polyester paint
- Degree of protection IP 24

### Accessories

- **PR3:** Remote control panel with ON/OFF, operating mode selection (cooling / heating) and general alarm indication.
- **VPH:** Pressure switch valve with bypass solenoid valve: during cooling mode operation the bypass valve is closed so the water flows exclusively through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.
- **VT:** Rubber anti-vibration mounts.
- **VT M:** Spring anti-vibration mounts.

#### Compatibility of accessories

Mod. Venice	PR 3	VPH 10	VPH 11	VT 7	VT M
20 H	•	•		•	•
25 H	•		•	•	•
30 H	•		•	•	•

## Technical data

VENICE			20H	25H	30H
V/ph/Hz			230V~50Hz		
12°C/7°C	Cooling capacity	(1) kW	6,94	8,24	9,75
	Total input power	(1) kW	1,74	1,98	2,38
	EER	(1)	3,99	4,16	4,10
	ESEER	(1)	4,59	4,58	4,58
	Cooling Energy Class Eurovent	(1)	D	D	D
	Evaporator water flow rate	(1) l/h	1194	1417	1677
	Useful head system side circuit	(1) kPa	63	61	69
	Condenser water consumption	(1) l/h	1500	1770	2095
45°C/50°C	Pressure drops	(1) kPa	18	13	12
	Heating capacity	(2) kW	7,77	9,26	10,85
	Total input power	(2) kW	2,59	3,08	3,57
	COP	(2)	3,00	3,01	3,04
	Cooling Energy Class Eurovent	(2)	G	G	G
	Condenser water flow rate	(2) l/h	1342	1600	1875
	Useful head system side circuit	(2) kPa	61	59	57
	Evaporator water consumption	(2) l/h	929	1106	1300
Pressure drops			(2) kPa	2	2
<b>Performance under average climatic conditions (Average)</b>					
Pdesignh			(3)	11	13
SCOP			(3)	4,08	4,13
ηs			(3)	160	162
Efficiency Energy Class			(4)	A++	A++

### Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water condenser (in/out) 30°C/35°C

(2) Water system side (in/out) 45°C/50°C; Water evaporator (in/out) 10°C/5°C

(3) Efficiencies for low temperature Applications (35°C)

(4) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

			20H	25H	30H
<b>Electrical data</b>					
230V	Total input current (cooling)	(2) A	10,1	11,8	13,1
	Total input current (heating)	(2) A	13,4	15,7	13,3
	Maximum current (FLA)	(2) A	15	18	24
	Starting current (LRA)	(2) A	61	76	100
<b>Compressor</b>					
Compressor			Type/n°	Scroll/1	Scroll/1
Circuit			n°	1	1
Refrigerant			Type	R407C	
<b>Heat exchanger system side</b>					
Exchanger			Type/n°	Plate/1	
hydraulic connections (In/Out)			Type/Ø	male Gas/1"	
<b>Heat exchanger source side</b>					
Exchanger			Type/n°	Plate/1	
hydraulic connections (In/Out)			Type/Ø	male Gas/1"	
<b>Sound data (cooling mode)</b>					
Sound power level			dB(A)	56	57
Sound pressure level			dB(A)	48	49

(2) including circulator pump power consumption

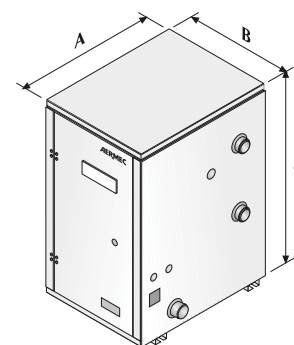
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

VENICE		20H	25H	30H
A	mm	504	504	504
B	mm	404	404	404
C	mm	625	625	625
Weight	kg	103	106	109



Cod.: SUNCUY.07 / 1603

## WRL 026/161 cooling only

HFC  
Refrigerant  
**R410A**

*Variable Multi Flow*

**VMF**



Aermec participates in the EUROVENT Programme: LCP  
The products of interest can be found on the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)

Water-cooled chillers  
Cooling capacity from 6,58÷43,40 kW



**DISPLAY  
MODU\_CONTROL**



**KSAE**  
External air sensor  
ACCESSORY



**PR3**  
Simplified remote panel  
ACCESSORY

- **HIGH EFFICIENCIES**
- **OPTION FOR:  
DESUPERHEATER**
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**

### Characteristics

WRL is the range of water cooled chillers operating with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements, small dimensions, easy of installation, low noise.

**Connections:** The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

**Silent:** The WRL units are distinguished for their silence in operation. Careful soundproofing of the unit with suitable sound-absorbent material results in low sound levels for all units.

**Dynamic set point:** Using the latest generation

of electronic controller and with an external air temperature sensor "KSAE" (accessory), the heat pump unit can vary the leaving water temperature based on climatic conditions, thus increasing the energy efficiency of the system.

#### Versions

- **WRL-°** (standard without buffer tank)
- **WRL-A** (with buffer tank)

- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)
- Generously sized plate heat exchangers
- Compressors with high performance and low electrical input

- Differential pressure switch standard (on evaporator side)
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility

The safety of the unit is provided by the door interlocked isolator and active protection of the main components

- Latest generation of electronic controller
- Control circuit board (Modu control)
- "PR3" simplified remote panel (ACCESSORY)
- Compatible with the (VMF) system except for domestic hot water production.

### Accessories

- **MODU-485A:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - **AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - **AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - **AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network

- with integrated GPRS modem;
- **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **AERSET:** The AERSET accessory allows the automatic compensation of the operating set-point of the unit to which it is connected, based on a 0-10V MODBUS input signal.  
**Mandatory accessory: AER485 or MODU-485BL**
- **PR3:** Simplified remote panel. Allows control of the basic unit functions and alarm notification. Remote mounted up to 150 m distance

- with a shielded cable.
- **VPL:** Pressure switch valve complete with connections, piloted directly in relation to condensation pressure; the valve modulates the volume of water needed to cool the condenser, thereby maintaining the condensation temperature unchanged.
- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.

## Accessory compatibility

WRL	026	031	041	051	071	081	101	141	161
MODU-485A	•	•	•	•	•	•	•	•	•
AERWEB300	•	•	•	•	•	•	•	•	•
AERSET	•	•	•	•	•	•	•	•	•
PR3	•	•	•	•	•	•	•	•	•
VPL	VPL1	VPL1	VPL2	VPL2	VPL3	VPL3	VPL4	VPL4	VPL4
KSAE	•	•	•	•	•	•	•	•	•
VT (version °)	9	9	9	9	9	9	15	15	15
VT (version A)	15	15	15	15	15	15	15A	15A	15A

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Field	Code
1,2,3	WRL
4,5,6	Size
	026-031-041-051-071-081-101-141-161
7	<b>Field of use</b>
	° Standard (with leaving water down to +4 °C)
Y	Low temperature (with leaving water up +4°C to -8°C)
8	<b>Model</b>
	° Cooling only
E	Evaporating unit (shipped with holding charge only)
9	<b>Version</b>
	° Without buffer tank
A	With buffer tank
10	<b>Heat recovery</b>
	° Without recovery
D	Desuperheater
11	<b>Geothermal side kit pumps version</b>
	° Without pump
	<b>Geothermal applications</b>
B	Circulator inverter (WRL026÷081) (1)
	Pumps On/Off (WRL101÷161)
U	High head pump (WRL101÷161)
I	Inverter pump (WRL026÷081)
	<b>Applications with bore hole water</b>
V	2-way modulating valve
12	<b>System side kit pumps version</b>
	° Without pump
P	Circulator inverter (WRL026÷081) (1)
	Pumps On/Off (WRL101÷161)
N	High head pump (WRL101÷161)
13	<b>Filed not used</b>
	°
14	<b>Soft-start</b>
	° Without soft-start
S	With soft-start
15	<b>Power supply</b>
	° 400/3N/50Hz
M	230V/1/50Hz (WRL026÷041)

(1) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

## Technical Data

WRL - °			026	031	041	026	031	041	051	071	081	101	141	161
		V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	6,58	8,27	11,30	6,7	8,4	11,3	14,7	19,2	21,8	29,4	38,4	43,7
	Total input power	(1) kW	1,57	1,89	2,56	1,53	1,82	2,66	3,22	4,15	4,85	6,38	8,25	9,62
	EER	(1)	4,19	4,38	4,41	4,37	4,60	4,25	4,57	4,63	4,49	4,61	4,65	4,54
	ESEER	(1)	4,22	4,41	4,34	4,42	4,65	4,46	4,59	4,58	4,46	4,89	4,84	4,69
	Cooling Energy Class Eurovent	(1)	D	C	C	C	C	D	C	C	C	C	B	C
	Water flow rate system side	(1) l/h	1136	1429	1954	1153	1447	1954	2539	3318	3769	5076	6635	7552
	Pressure drop	(1) kPa	15	17	23	15	17	23	21	26	30	25	34	38
	Water flow rate geothermal side	(1) l/h	1386	1731	2360	1396	1736	2375	3055	3979	4538	6101	7949	9079
	Pressure drop	(1) kPa	29	30	36	28	30	36	32	40	46	42	58	67

WRL - ABP			026	031	041	026	031	041	051	071	081	101	141	161
		V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	6,70	8,42	11,48	6,8	8,5	11,5	14,9	19,44	22,06	30,08	39,31	44,7
	Total input power	(1) kW	1,37	1,66	2,27	1,33	1,58	2,37	2,96	3,84	4,52	6,27	8,13	9,44
	EER	(1)	4,89	5,07	5,06	5,11	5,39	4,84	5,03	5,06	4,88	4,80	4,84	4,74
	Cooling Energy Class Eurovent	(1)	B	A	A	A	A	B	B	A	B	B	B	B
	Water flow rate system side	(1) l/h	1136	1429	1954	1153	1447	1954	2539	3318	3769	5076	6535	7552
	Useful head	(1) kPa	78	74	60	78	74	60	74	60	50	147	163	157
	Water flow rate geothermal side	(1) l/h	1386	1731	2360	1396	1736	2375	3055	3979	4528	6101	7949	9079
	Useful head	(1) kPa	63	57	39	62	56	38	56	36	22	115	136	123

WRL - E			026	031	041	026	031	041	051	071	081	101	141	161
		V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V	400V
	Cooling capacity	(2) kW	6,20	7,80	10,40	6,30	7,80	10,40	13,40	17,40	19,70	26,80	34,70	39,40
	Total input power	(2) kW	1,70	2,10	2,90	1,70	2,00	2,80	3,60	4,50	5,30	7,20	9,10	10,60
	EER	(2)	3,56	3,65	3,63	3,70	3,87	3,75	3,73	3,83	3,71	3,73	3,83	3,71
	Water flow rate system side	(2) l/h	1070	1340	1790	1080	1340	1790	2300	2980	3390	4600	5970	6770
	Pressure drop	(2) kPa	13	15	20	13	15	20	18	21	24	21	28	31

### Data (14511:2013)

Data relating to the version with storage tank and pump "B" on geothermal side, pump "P" on utility side

- (1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C  
 (2) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

			026	031	041	051	071	081	101	141	161
Electrical data											
230V	Total input currente (cooling) ver. °	(3) A	7,2	9,2	11,7	/	/	/	/	/	/
	Total input currente (cooling) ver.E	(3) A	8,3	10,5	12,8	/	/	/	/	/	/
	Maximum current (FLA)	(3) A	18	21	34	/	/	/	/	/	/
	Starting current (LRA)	(3) A	63	84	119	/	/	/	/	/	/
400V	Total input currente (cooling) ver. °	(3) A	4,2	4,5	4,9	6,4	7,4	9,1	12,8	14,8	18,2
	Total input currente (cooling) ver.E	(3) A	3,4	3,2	5,4	7,2	8,3	10,2	14,3	16,6	20,5
	Maximum current (FLA)	(3) A	8	8	15	17	21	22	32	40	41
	Starting current (LRA)	(3) A	34	37	65	75	75	75	90	94	95
Scroll Compressor											
Compressors / Circuit		n°/n°	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1
Refrigerant		Type	R410A								
Heat exchanger system side											
Exchanger		Type/n°	Plate/1								
hydraulic connections (In/Out)		Type/Ø	F/1"¼								
Heat exchanger source side											
Exchanger		Type/n°	Plate/1								
hydraulic connections (In/Out)		Type/Ø	F/1"¼								
Sound data (cooling)											
Sound power level		dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure level		dB(A)	24,0	25,8	25,3	27,7	28,7	29,2	30,6	31,6	32,1

(3) Unit standar configuration without hydronic kit

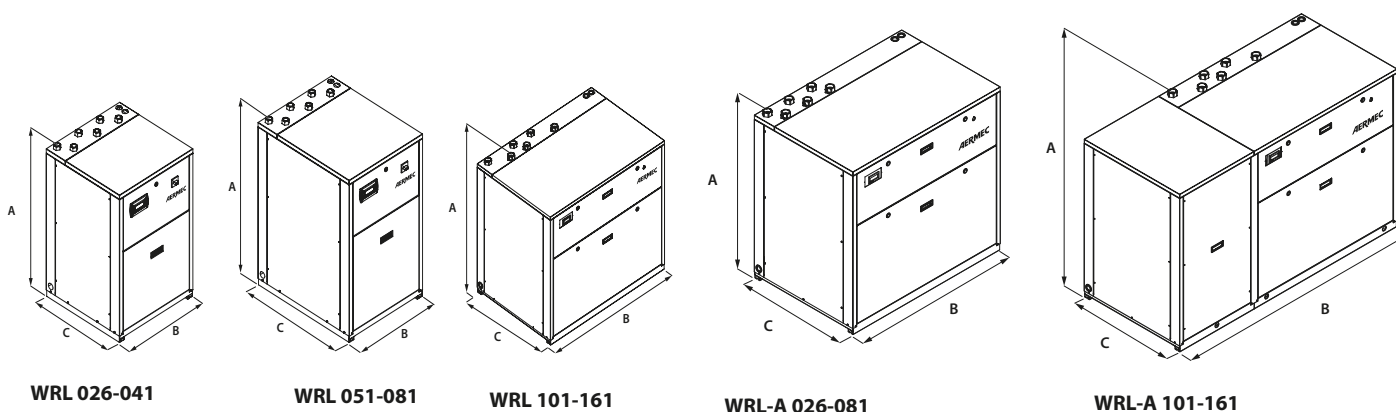
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



## Dimensions (mm)



WRL °-E		026	031	041	051	071	081	101	141	161
Height (A)	mm	976	976	976	1126	1126	1126	1126	1126	1126
Width (B)	mm	605	605	605	605	605	605	1155	1155	1155
Length (C)	mm	603	603	603	773	773	773	773	773	773
Weight WRL°	kg	120	125	130	150	170	180	260	270	280
Weight WRLE	kg	110	115	125	150	150	150	245	250	250

WRL-A		026	031	041	051	071	081	101	141	161
Height (A)	mm	1126	1126	1126	1126	1126	1126	1126	1126	1126
Width (B)	mm	1155	1155	1155	1155	1155	1155	1755	1755	1755
Length (C)	mm	773	773	773	773	773	773	773	773	773
Weight *	Kg	190	200	210	230	250	260	340	350	360

\* Weight with two heat exchangers and buffer tank without pumps.

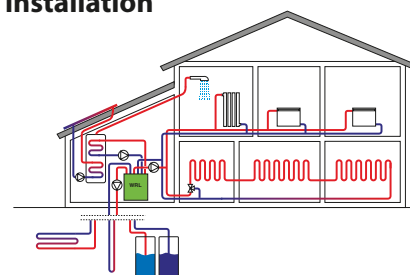
## WRL 026/161 heat pumps

HFC  
Refrigerant  
**R410A**



Aermec participate in the EUROVENT program: LCP, the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Reversible heat pumps Water/Water for indoor installation**  
**Scroll compressors, plate heat exchangers**  
**Cooling capacity 6,3÷40,3kW**  
**Heating capacity 7,9÷48,1kW**



**TAT - TAH**  
ACCESSORIES



**PGD1**  
Simplified remote panel.  
ACCESSORIES

- **HIGH EFFICIENCY**
- **PRODUCTION OF HOT WATER UP TO 60 °C PRIORITY**
- **PRODUCTION OF DOMESTIC HOT WATER**
- **IDEAL FOR GEOTHERMAL APPLICATIONS**

### Characteristics

The WRL water-cooled heat pumps are reversible products for the production of chilled, hot and domestic hot water. These indoor units feature hermetic scroll compressors, system side heat exchangers and source with plates, which fully meet the needs of the residential market: small size, easy installation, low noise. They can be installed in traditional systems or with radiant panels.

In the latter, by using lower water temperatures, they ensure better overall efficiency. They are particularly suitable for new low consumption buildings that mainly use renewable energy sources. In the total recovery systems there is also the possibility to produce domestic hot water with priority both in summer and in winter. The unit is supplied with a temperature probe for a possible DHW storage tank. The base, the structure and the panels are made of steel treated with rustproof polyester paint.

The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

#### Versions

**WRL\_H** Heat pump without storage tank

**WRL\_HA** with system storage tank

Operational limits: Operation at full power with domestic hot water for the system up to 60°C. For further details refer to the technical/selection software documentation.

- Single-circuit unit
- Water filter, differential pressure switch and water safety valve as standard on the system and source

sides and on the domestic hot water side if envisaged.

- Possibility of a hydronic kit, which encloses the main hydraulic components; available in different configurations, with high or low static pressure pumps, inverter pumps and the possibility of a modulating valve for reducing consumption (source side, for groundwater applications)
- Microprocessor adjustment, with keyboard and LCD display, for easy intervention on the unit via a menu available in several languages. Adjusting the unit with an external air temperature probe (accessory) ensures dynamic temperature control of the water produced, increasing the energetic efficiency of the system.

### Accessories

- **AER485P1**: RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - **AERWEB300-6**: Web server to monitor and remote control max. 6 units in RS485 network;
  - **AERWEB300-18**: Web server to monitor and remote control max. 18 units in RS485 network;
  - **AERWEB300-6G**: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - **AERWEB300-18G**: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **VT**: Anti-vibration mounts.
- **TAT**: Room temperature sensor. 230 Vac recess mounted kit containing the ambient sensor with display and control knob, able to control an ON-OFF valve or a zone pump.
- **TAH**: Room temperature and humidity sensor. 230 Vac recess mounted kit containing the sensor with display and control knob, able to control an ON-OFF valve or a zone pump and dehumidifier enable.
- **SSM**: Sensor to be used together with the mixing valve in applications with radiant panels. Accessory to be requested together with the VMFCRP zone accessory.
- **S...I**: System buffer tanks: available in sizes 200, 300, 400 and 500 litres (S200I, S300I, S400I and S500I).
- **PGD1**: Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **KSAE**: External air sensor. Temperature sensor

- with plastic enclosure.
- VPHL:** Pressure switch valve with bypass solenoid valve: during cooling mode operation the bypass valve is closed so the water flows exclusively through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.
- VMFCRP:** WRL Zones Control can control up to a maximum of 3 zones with the following

modes:

- Zone 1: Controlled as standard with the latest generation electronic controller. The "SSM" clamp on sensor (accessory) is recommended to control the flow temperature.**
- The unit is shipped with a temperature sensor kit for the DHW tank.**
- The control of the remaining Zone 2 and Zone 3 is possible using the VMFCRP + SSM accessories for each zone.

- SAF:** Thermal accumulator for the instantaneous production of domestic hot water. **Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.**

## Accessory compatibility

WRL_H	026H	031H	041H	051H	071H	081H	101H	141H	161H
AER485P1	.	.	.	.	.	.	.	.	.
AERWEB300	.	.	.	.	.	.	.	.	.
VT (vers. H)	9	9	9	9	9	9	15	15	15
VT (vers. HA)	15	15	15	15	15	15	15A	15A	15A
TAT	.	.	.	.	.	.	.	.	.
TAH	.	.	.	.	.	.	.	.	.
SSM	.	.	.	.	.	.	.	.	.
S...I (200-300-400-500)	.	.	.	.	.	.	.	.	.
PGD1	.	.	.	.	.	.	.	.	.
VPHL	VPHL1	VPHL1	VPHL2	VPHL2	VPHL3	VPHL3	VPHL4	VPHL4	VPHL4
KSAE	.	.	.	.	.	.	.	.	.
VMFCRP	.	.	.	.	.	.	.	.	.
SAF	.	.	.	.	.	.	.	.	.

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

Field	Description
1,2,3	<b>WRL</b>
4,5,6	<b>Size</b>
	026-031-041-051-071-081-101-141-161
7	<b>Field of use</b>
X	Electronic thermostatic valve (temperature of water produced up to +4 °C) for other temperatures, contact the head office.
8	<b>Model</b>
H	Heat pumps
9	<b>Version</b>
	° Standard
A	With buffer tank
10	<b>Heat recovery</b>
	° Without recovery
T	With total recovery
11	<b>Geothermal side pump kit</b>
	° Without pump
	<b>Geothermal applications</b>
B	Circulator inverter (WRL026÷081) (1)
	Pump On/Off (WRL101÷161)
U	High head pump (WRL101÷161)
I	Inverter pump (WRL026÷081)
	<b>Applications with bore hole water</b>
V	2-way modulating valve
12	<b>System side kit pumps version</b>
	° Without pump
P	Circulator inverter (WRL026÷081) (1)
	Pumps On/Off (WRL101÷161)
N	High head pump (WRL101÷161)
13	<b>Heat recovery side kit pump version</b>
	° Without pump
Q	Circulator inverter (1)
14	<b>Soft-start</b>
	° Without soft-start
S	With soft-start
15	<b>Power supply</b>
	° 400/3N/50Hz
M	230V/1/50Hz (WRL026÷041)
4	230V/3/50Hz (only for sizes WRL051÷141)

(1) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate

## Technical Data

WRL - H		026	031	041	026	031	041	051	071	081	101	141	161
		V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	6,28	7,88	10,30	6,28	8,08	10,40	13,7	17,7	20,2	27,5	35,3
	Total input power	(1) kW	1,73	1,97	2,50	1,63	2,40	2,39	3,14	4,38	5,14	6,3	8,75
	EER	(1)	3,63	4,00	4,12	3,85	3,37	4,35	4,36	4,04	3,93	4,37	3,91
	ESEER	(1)	3,97	4,37	4,42	4,23	4,66	4,64	4,65	4,23	3,93	5,28	4,84
	Cooling Energy Class Eurovent	(1)	E	D	D	D	F	C	C	D	D	C	D
	Water flow rate system side	(1) l/h	1086	1362	1780	1084	1396	1797	2366	3057	3490	4746	6095
	Pressure drop	(1) kPa	9	14	19	12	15	19	18	21	25	21	28
	Water flow rate geothermal side	(1) l/h	1363	1678	2179	1346	1782	2179	2871	3760	4313	5763	7502
	Pressure drop	(1) kPa	22	23	30	22	23	29	29	36	41	37	48
40°C / 45°C	Heating capacity	(2) kW	7,93	10,01	12,70	7,92	9,54	12,50	16,5	21,0	24,2	32,9	41,9
	Total input power	(2) kW	2,10	2,62	3,39	2,10	2,45	3,13	4,13	5,32	6,23	8,22	10,6
	COP	(2)	3,78	3,82	3,75	3,77	3,89	3,99	4,00	3,95	3,88	4,00	3,95
	Heating Energy Class Eurovent	(2)	D	D	D	D	C	C	C	C	C	C	C
	Water flow rate system side	(2) l/h	1369	1727	2190	1367	1396	2157	2848	3625	4175	5682	7233
	Pressure drop	(2) kPa	72	65	51	20	15	28	28	32	38	35	43
	Water flow rate geothermal side	(2) l/h	1722	2180	2753	1720	2091	2767	3646	4624	5306	7268	9222
	Pressure drop	(2) kPa	46	34	20	34	34	46	43	50	59	52	62
Performance under average climatic conditions (Average)													
Pdesignh		(3)	10	13	16	10	12	16	21	26	31	42	53
SCOP		(3)	3,75	3,83	3,75	3,73	3,83	3,98	4,00	3,98	3,95	4,58	4,53
ηs		(3)	142	145	142	141	145	151	152	151	150	175	173
Efficiency Energy Class		(4)	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
Pdesignh		(5)	11	14	17	11	14	17	23	30	35	45	60
SCOP		(5)	5,15	5,50	5,18	5,08	5,45	5,38	5,50	5,48	5,33	6,03	5,85
ηs		(5)	198	212	199	195	210	207	212	211	205	233	226
Efficiency Energy Class		(4)	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++

WRL - HABP		026	031	041	026	031	041	051	071	081	101	141	161
		V/ph/Hz	230V	230V	230V	400V	400V	400V	400V	400V	400V	400V	400V
12°C / 7°C	Cooling capacity	(1) kW	6,40	8,02	10,47	6,40	8,22	10,57	13,9	17,9	20,4	28,2	36,15
	Total input power	(1) kW	1,55	1,76	2,23	1,44	2,16	2,12	2,90	4,08	4,82	6,21	8,68
	EER	(1)	4,13	4,56	4,70	4,44	3,81	4,99	4,79	4,39	4,24	4,53	4,16
	Cooling Energy Class Eurovent	(1)	D	C	B	C	E	B	B	C	D	C	D
	Water flow rate system side	(1) l/h	1084	1361	1780	1084	1396	1797	2366	3057	3490	4746	6095
	Useful head	(1) kPa	80	76	66	81	75	66	78	68	58	154	170
	Water flow rate geothermal side	(1) l/h	1363	1678	2179	1346	1782	2767	2871	3760	4313	5763	7502
	Useful head	(1) kPa	64	60	48	70	61	49	63	44	31	125	147
40°C / 45°C	Heating capacity	(2) kW	7,51	9,83	12,50	7,77	9,38	12,31	16,3	20,7	23,1	32,2	40,91
	Total input power	(2) kW	1,89	2,36	3,09	1,86	2,18	2,82	3,85	5,03	5,79	8,11	10,45
	COP	(2)	3,97	4,17	4,05	4,18	4,30	4,37	4,23	4,12	3,99	3,97	3,91
	Heating Energy Class Eurovent	(2)	C	B	C	B	B	B	C	C	C	C	D
	Water flow rate system side	(2) l/h	1321	1727	2190	1367	1648	2157	2848	3625	4028	5682	7233
	Useful head	(2) kPa	74	65	51	74	68	52	63	50	40	130	155
	Water flow rate geothermal side	(2) l/h	1722	2180	2753	1720	2091	2767	3646	4624	5306	7268	9222
	Useful head	(2) kPa	46	34	20	55	48	22	33	11	72	78	118
Performance under average climatic conditions (Average)													
Pdesignh		(3)	10	13	16	10	12	16	21	26	30	41	52
SCOP		(3)	4,00	4,10	4,00	3,98	4,08	4,23	4,23	4,13	4,08	4,53	4,45
ηs		(3)	152	156	152	151	155	161	161	157	155	173	170
Efficiency Energy Class		(4)	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
Pdesignh		(5)	10	13	17	10	13	17	22	30	34	44	59
SCOP		(5)	5,78	6,28	5,55	5,78	6,15	5,75	6,13	5,75	5,45	6,00	5,95
ηs		(5)	223	243	214	223	238	222	237	222	210	232	230
Efficiency Energy Class		(4)	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++

Date (14511:2013)

Date relating to the version with storage tank and pump "B" on geothermal side, pump "P" on utility side.

- (1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C
- (2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C
- (3) Efficiencies for low temperature Applications (35°C)
- (5) Efficiencies for average temperature Applications (55°C)
- (4) Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 70kW

## Technical Data

			026	031	041	051	071	081	101	141	161
Electrical data											
230V	Total input current (cooling)	(6) A	8,5	10,8	13,5	/	/	/	/	/	/
	Total input current (heating)	(6) A	10,5	13,1	16,6	/	/	/	/	/	/
	Maximum current (FLA)	(6) A	18	21	34	/	/	/	/	/	/
	Starting current (LRA)	(6) A	63	84	119	/	/	/	/	/	/
400V	Total input current (cooling)	(6) A	4,2	3,8	5,8	7,2	9,0	10,2	13,3	16,7	19,1
	Total input current (heating)	(6) A	4,9	4,9	6,7	8,5	10,7	12,2	16,1	20,7	23,9
	Maximum current (FLA)	(6) A	8	8	15	17	21	22	32	40	41
	Starting current (LRA)	(6) A	34	37	65	75	75	75	90	94	95
Scroll Compressor											
Compressors / Circuit		n°/n°	1/1	1/1	1/1	1/1	1/1	1/1	2/1	2/1	2/1
Refrigerant		Type	R410A								
Heat exchanger system side											
Exchanger		Type/n°	Plate/1								
hydraulic connections (In/Out)		Type/Ø	F/1"¼								
Heat exchanger source side											
Exchanger		Type/n°	Plate/1								
hydraulic connections (In/Out)		Type/Ø	F/1"¼								
Sound data (Cooling mode)											
Sound power level		dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure level		dB(A)	24,0	25,8	25,3	27,7	28,7	29,2	30,6	31,6	32,1

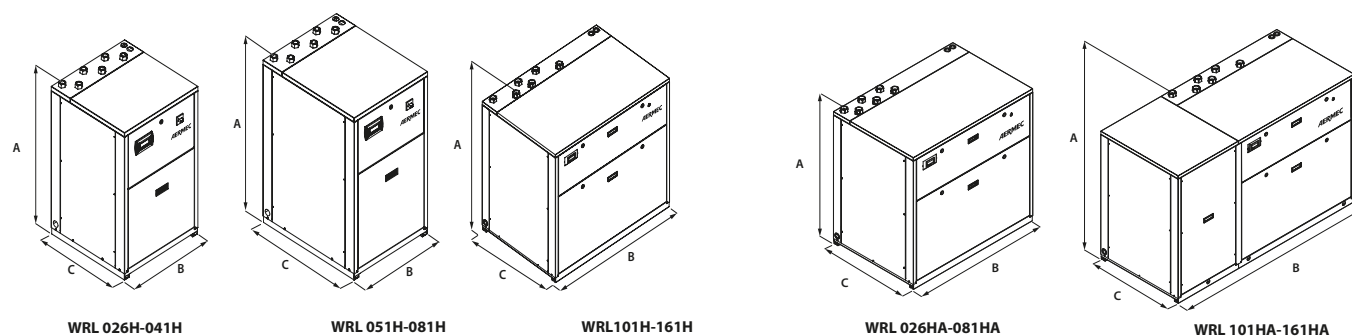
(6) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



WRL		026H	031H	041H	051H	071H	081H	101H	141H	161H
Height (A)	mm	976	976	976	1126	1126	1126	1126	1126	1126
Width (B)	mm	605	605	605	605	605	605	1155	1155	1155
Depth (C)	mm	603	603	603	773	773	773	773	773	773
Weight	kg	120	125	130	150	170	180	260	270	280

WRL		026HA	031HA	041HA	051HA	071HA	081HA	101HA	141HA	161HA
Height (A)	mm	1126	1126	1126	1126	1126	1126	1126	1126	1126
Width (B)	mm	1155	1155	1155	1155	1155	1155	1755	1755	1755
Depth (C)	mm	773	773	773	773	773	773	773	773	773
Weight *	Kg	190	200	210	230	250	260	340	350	360

\* Weight with two heat exchangers and buffer tank without pumps.

## WRL 180/650 reversible water-side

**Chillers reversible**  
**Water/Water for indoor installation**  
**with scroll compressor plate exchanger**  
**Cooling capacity 50÷173kW**  
**Heating capacity 51÷184kW**

**HFC**  
Refrigerant  
**R410A**



Aermec participates in the EUROVENT Programme: LCP The products of interest can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)



**PGD1**  
Simplified remote panel.  
ACCESSORY



**TAT - TAH**  
terminal environment  
ACCESSORY



- **HIGH EFFICIENCIES**
- **POSSIBILITY OF HAVING: PARTIAL HEAT RECOVERY PRODUCTION OF HOT WATER UP TO 55 °C**
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**

### Characteristics

WRL is the range of water cooled chillers operating with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

#### High efficiency

Aermec has designed these units to optimise heat pump operation, providing high performances and low energy consumption.

#### Connections

The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

#### Silent

The WRL units are distinguished for their silence in operation. Careful soundproofing of the unit with suitable sound-absorbent material results in low sound levels for all units.

#### Dynamic set point

Using the latest generation of electronic controller and with an external air temperature sensor (accessory), the heat pump unit can vary the leaving water temperature based on climatic conditions, thus increasing the energy efficiency of the system.

#### Advantages

Using the latest innovative technology and focus on maximum quality gives the WRL series the maximum energy efficiency, ease of installation, and most versatile application using renewable energy sources.

#### Model

- **WRL\_°:** Reversible water-side
- **WRL\_K:** Reversible water-side with low pressure drops system side
- **WRL\_E:** Evaporating unit

#### Technical features

- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)
- Generously sized plate heat exchangers
- Compressors with high performance and low

electrical input

- Flow switch as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility
- The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- Latest generation of electronic controller
- User-friendly remote mounted control panel with alarm notification.

## Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - **AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - **AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - **AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel base.
- **TAT:** Room temperature sensor, 230 Vac recess mounted kit containing the ambient sensor with display and control knob, able to control an ON-OFF valve or a zone pump.
- **TAH:** Room temperature and humidity sensor, 230 Vac recess mounted kit containing the sensor with display and control knob, able to control an ON-OFF valve or a zone pump and dehumidifier enable.
- **SSM:** Sensor to be used together with the mixing valve in applications with radiant panels. Accessory to be requested together with the VMFCRP zone accessory.
- **S...I:** System buffer tanks: available in sizes 200, 300, 400 and 500 litres (S200I, S300I, S400I and S500I).
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **VMFCRP:** WRL Zones Control can control up to a maximum of 3 zones with the following modes:
  - **Zone 1: Controlled as standard with the latest generation electronic controller. The "SSM" clamp on sensor (accessory) is recommended to control the flow temperature.**
  - The control of the remaining Zone 2 and Zone 3 is possible using the VMFCRP + SSM accessories for each zone.

WRL	180	200	300	400	500	550	600	650
AER485P1	•	•	•	•	•	•	•	•
AERWEB300	•	•	•	•	•	•	•	•
VT	9	9	9	9	15	15	15	15
TAT	•	•	•	•	•	•	•	•
TAH	•	•	•	•	•	•	•	•
SSM	•	•	•	•	•	•	•	•
S...I (200-300-400-500)	•	•	•	•	•	•	•	•
PGD1	•	•	•	•	•	•	•	•
KSAE	•	•	•	•	•	•	•	•
VMFCRP	•	•	•	•	•	•	•	•

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

- |              |   |
|--------------|---|
| <b>Field</b> | <b>Code</b>   |
| <b>1,2,3</b> | <b>WRL</b>  |
| <b>4,5,6</b> | <b>Size</b>   |
|              | 180-200-300-400-500-550-600-650   |
| <b>7</b>     | <b>Filed use</b>  |
|              | ° Standard (Standard with leaving water above +4°C)   |
|              | <b>Y</b> Low temperature with leaving liquid down to -8°C   |
|              | <b>X</b> Electronic expansion valve with leaving liquid down to +4°C (for different temperature contact us) |
| <b>8</b>     | <b>Model</b>  |
|              | ° Reversible water-side   |
|              | <b>K</b> Reversible water-side with low pressure drops system side  |
|              | <b>E</b> Evaporating unit (1)   |
| <b>9</b>     | <b>Version</b>  |
|              | ° Standard  |
| <b>10</b>    | <b>Heat recovery</b>  |
|              | ° Without heat recovery   |
|              | <b>D</b> Con desurriscaldatore  |
| <b>11</b>    | <b>Pumps condenser side</b>   |
|              | ° Without pumps   |
|              | <b>B</b> Low static pressure pump   |
|              | <b>U</b> High static pressure pump  |
|              | <b>F</b> Low static pressure inverter pump  |
|              | <b>I</b> High static pressure inverter pump   |
|              | <b>V</b> 2-way modulating valve   |
|              | <b>Pumps evaporator side</b>  |
|              | ° Without pumps   |
|              | <b>P</b> Low static pressure pump   |
|              | <b>N</b> High static pressure pump  |
| <b>12</b>    | <b>Field not used</b>   |
|              | °   |
| <b>13</b>    | <b>Soft-start</b>   |
|              | ° Without Soft Start  |
|              | <b>S</b> With Soft Start  |
| <b>13</b>    | <b>Power supply</b>   |
|              | ° 400V/3/50Hz   |
|              | <b>5</b> 500V/3/50Hz (2)  |

(1) shipped with holding charge only

(2) 500V/3/50Hz only size 400÷650



## Technical data

Model WRL_° standard			180°	200°	300°	400°	500°	550°	600°	650°
Cooling capacity	(3)	kW	50	64	74	86	100	129	150	168
Input power	(3)	kW	10,95	14,52	16,91	18,34	20,51	26,96	30,98	35,73
E.E.R.	(3)	W/W	4,52	4,42	4,39	4,67	4,86	4,79	4,83	4,71
E.S.E.E.R.	-		4,61	4,43	4,40	4,40	5,47	5,67	5,23	4,82
Eurovent class	-		C	C	C	B	B	B	B	B
Evaporator water flow rate		l/h	8559	11094	12838	14838	17205	22320	25872	29126
Pressure drops system side		kPa	27	43	46	60	30	49	53	67
Condenser water flow rate		l/h	10176	13210	15290	17459	20242	26265	30400	34312
Pressure drops geothermal side		kPa	27	46	62	81	32	52	57	72
Heating capacity		kW	51	69	76	89	102	140	161	180
Input power		kW	12,79	17,46	19,16	21,29	23,49	32,51	37,00	42,04
COP		W/W	4,02	3,97	3,98	4,18	4,35	4,32	4,34	4,28
Condenser water flow rate		l/h	8808	11858	13031	15201	17494	24030	27518	30791
Pressure drops system side		kPa	20	37	44	61	24	44	47	59
Evaporator water flow rate		l/h	6668	8963	9859	11711	13560	18640	21381	23843
Pressure drops geothermal side		kPa	19	31	30	41	20	37	38	47

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C

(3) EUROVENT for reversible units side water certifies the sun made cold (12/7°C - 30/35°C)

### Heating

Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/5°C

Model WRL_K low pressure drops			180K	200K	300K	400K	500K	550K	600K	650K
Cooling capacity	(3)	kW	50	66	76	88	100	133	154	173
Input power	(3)	kW	10,95	14,49	16,91	18,31	20,51	26,75	30,81	35,55
E.E.R.	(3)	W/W	4,52	4,56	4,52	4,83	4,86	4,98	5,01	4,89
E.S.E.E.R.	-		4,61	4,43	4,40	4,40	5,47	5,67	5,23	4,82
Evaporator water flow rate		l/h	8559	11427	13223	15284	17205	22990	26648	30000
Pressure drops system side		kPa	27	34	42	48	30	24	33	41
Condenser water flow rate		l/h	10176	13543	15675	17904	20242	26934	31176	35186
Pressure drops geothermal side		kPa	27	48	65	85	32	55	60	76
Heating capacity		kW	51	71	78	91	102	144	164	184
Input power		kW	12,79	17,46	19,19	21,30	23,49	32,38	37,00	41,96
COP		W/W	4,02	4,06	4,06	4,28	4,35	4,44	4,46	4,39
Condenser water flow rate		l/h	8808	12135	13336	15563	17494	24605	28178	31528
Pressure drops system side		kPa	20	39	46	64	24	46	49	62
Evaporator water flow rate		l/h	6668	9530	10482	12422	13560	19754	22655	25274
Pressure drops geothermal side		kPa	19	25	30	35	20	20	25	32

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C

(3) EUROVENT for reversible units side water certifies the sun made cold (12/7°C - 30/35°C)

### Heating

Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/5°C

Model WRL_E evaporating unit			180E	200E	300E	400E	500E	550E	600E	650E
Cooling capacity		kW	46,0	60,1	69,6	80,1	90,6	121,3	140,2	158,7
Input power		kW	12,4	16,0	18,5	19,8	23,1	29,6	34,1	38,5
E.E.R.		W/W	3,7	3,8	3,8	4,1	3,9	4,1	4,1	4,1
Evaporator water flow rate		l/h	7900	10340	11980	13770	15580	20860	24110	27300
Pressure drops system side		kPa	23	39	39	56	25	42	47	57

### Cooling

Evaporator water temperature (in/out) 12°C/7°C; Condensing temperature 45°C

## Technical data

GENERAL DATA				180	200	300	400	500	550	600	650
Electrical data											
Total input current cooling mode	(4)	°	A	19,90	25,00	28,50	31,90	36,30	50,80	59,30	68,30
Total input current heating mode	(4)	°	A	22,80	29,50	32,00	35,90	41,10	57,80	66,70	76,10
Total input current cooling mode	(4)	E	A	22,9	28,5	32,4	35,6	41,8	55,8	64,8	73,9
Maximum current (FLA)			A	32	42	45	52	59	99	112	125
Starting current (LRA)			A	119	123	125	167	174	265	310	323
Compressors											
Compressors	type			Scroll							
	n°			2	2	2	2	2	2	2	2
Circuits	n°			1	1	1	1	1	1	1	1
Capacity control	%			50-100							
Refrigerant	type			R410A							
System side exchanger											
Evaporator	type			Plate							
	n°			1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)	Ø			2"	2"	2"	2"	2"½	2"½	2"½	2"½
Geothermal side exchanger											
Condenser	type			Plate							
	n°			1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)	Ø			2"	2"	2"	2"	2"½	2"½	2"½	2"½
Heat recovery side exchanger											
Desuperheater	type			Plate							
	n°			1	1	1	1	1	1	1	1
Hydraulic connections Victaulic (in/out)	Ø			1"½	1"½	1"½	1"½	1"½	1"½	1"½	1"½
Hydronic kit											
for more information, refer to the selection program											
Sound data											
Sound pressure			dB(A)	29,1	29,8	30,9	39,1	35,6	47,1	47,1	47,1
Sound power			dB(A)	61,1	61,8	62,9	71,1	67,6	79,1	79,1	79,1
Power supply			V/ph/Hz	400V/3/50Hz							

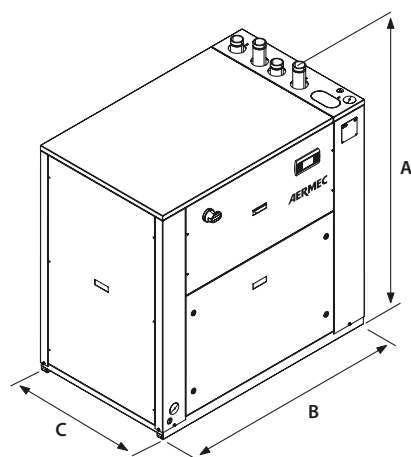
(4) The electrical data of the versions without hydronic module integrated

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

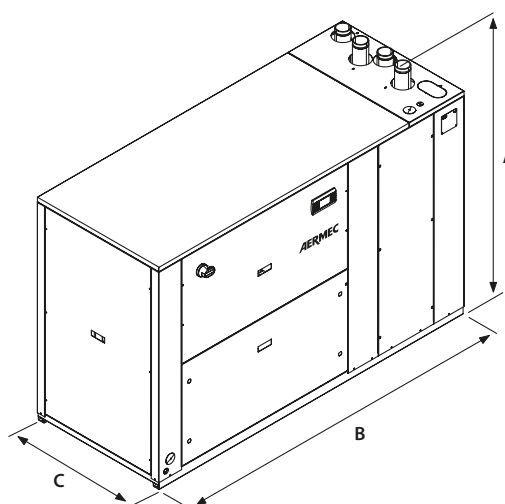
**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



WRL 180-400



WRL 500-650

Model WRL				180	200	300	400	500	550	600	650
Height	A	mm		1380	1380	1380	1380	1380	1380	1380	1380
Width	B	mm		1320	1320	1320	1320	2060	2060	2060	2060
Depth	C	mm		845	845	845	845	845	845	845	845
Weight		kg		375	375	381	388	518	594	670	715

## WRL 180/650 reversible refrigerant circuit

HFC  
Refrigerant  
**R410A**



Aermec participates in the EUROVENT Programme: LCP The products of interest can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)



**PGD1**  
Simplified remote panel.  
ACCESSORY



**TAT - TAH**  
ACCESSORY



**Water cooled reversible heat pumps  
for the production of hot water up to 55°C**  
Cooling capacity from 45 - 157kW  
Heating capacity from 53 - 184kW

- **HIGH EFFICIENCIES**
- **POSSIBILITY OF HAVING:  
PARTIAL HEAT RECOVERY  
PRODUCTION OF HOT WATER UP TO 55 °C**
- **SUITABLE FOR GEOTHERMAL APPLICATIONS**

### Characteristics

WRL is the range of water cooled chillers operating with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

#### High efficiency

Aermec has designed these units to optimise heat pump operation, providing high performances and low energy consumption.

#### Connections

The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.

#### Silent

The WRL units are distinguished for their silence in operation. Careful soundproofing of the unit with suitable sound-absorbent material results in low sound levels for all units.

#### Dynamic set point

Using the latest generation of electronic controller and with an external air temperature sensor (accessory), the heat pump unit can vary the leaving water temperature based on climatic conditions, thus increasing the energy efficiency of the system.

#### Advantages

Using the latest innovative technology and focus on maximum quality gives the WRL series the maximum energy efficiency, ease of installation, and most versatile application using renewable energy sources.

#### Range

Available in 8 sizes:  
• Reversible refrigerant side

#### Version

• WRLH= Heat pump

#### Technical features

• Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)

- Generously sized plate heat exchangers
- Compressors with high performance and low electrical input
- Flow switch as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility  
The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- Latest generation of electronic controller
- User-friendly remote control panel with alarm notification.

## Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
- **AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
- **AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
- **AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- **AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **VT:** Anti-vibration mounts: four anti-vibration mounts to be installed under the unit's steel

base.

- **TAT:** Room temperature sensor, 230 Vac recess mounted kit containing the ambient sensor with display and control knob, able to control an ON-OFF valve or a zone pump.
- **TAH:** Room temperature and humidity sensor, 230 Vac recess mounted kit containing the sensor with display and control knob, able to control an ON-OFF valve or a zone pump and dehumidifier enable.
- **SSM:** Sensor to be used together with the mixing valve in applications with radiant panels. Accessory to be requested together with the VMFCRP zone accessory.
- **S...I:** System buffer tanks: available in sizes 200, 300, 400 and 500 litres (S200I, S300I, S400I and S500I).
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification.

Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.

- **KSAE:** External air sensor. Temperature sensor with plastic enclosure.
- **VMFCRP:** WRL Zones Control can control up to a maximum of 3 zones with the following modes:  
- **Zone 1: Controlled as standard with the latest generation electronic controller. The "SSM" clamp on sensor (accessory) is recommended to control the flow temperature.**  
- The control of the remaining Zone 2 and Zone 3 is possible using the VMFCRP + SSM accessories for each zone.

ACCESSORY COMPATIBILITY

WRLH	180	200	300	400	500	550	600	650
AER485P1	*	*	*	*	*	*	*	*
AERWEB300	*	*	*	*	*	*	*	*
VT	9	9	9	9	15	15	15	15
TAT	*	*	*	*	*	*	*	*
TAH	*	*	*	*	*	*	*	*
SSM	*	*	*	*	*	*	*	*
S...I (200-300-400-500)	*	*	*	*	*	*	*	*
PGD1	*	*	*	*	*	*	*	*
KSAE	*	*	*	*	*	*	*	*
VMFCRP	*	*	*	*	*	*	*	*
VMFCRP	*	*	*	*	*	*	*	*

## Unit configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

### CODE:

WRL

### SIZE:

180 - 200 - 300 - 400 - 500 - 550 - 600 - 650

### FIELD OF USE:

° - Standard with leaving water above +4 °C

Y - Low temperature with leaving liquid down to -8 °C

X - Electronic expansion valve with leaving liquid down to +4°C  
(for different temperature contact us)

### MODEL:

H - Reversible refrigerant circuit

### VERSION:

° - Standard

### HEAT RECOVERY

° - Without heat recovery

D - Desuperheater

### PUMPS (GEOTHERMAL SIDE)

° - Without pump

B - Low static pressure pump

U - High static pressure pump

F - Low static pressure inverter pump

I - High static pressure inverter pump

V - 2-way modulating valve

### PUMPS (SYSTEM SIDE)

° - Without pump

P - Low static pressure pump

N - High static pressure pump

### FIELD NOT USED

°

### SOFT START

° - Without Soft Start

S - Soft Start

### POWER SUPPLY

° - 400V-3N -50 Hz

5 - 500V-3-50Hz (only models WRL400-550-600-650)

## Technical Data

WRL-H model		180	200	300	400	500	550	600	650
Cooling capacity	Kw	45	59	65	79	93	120	140	157
Input power	Kw	10,96	14,83	16,47	18,68	20,23	27,69	31,44	35,97
Input current	A	20	25	28	32	36	52	60	69
Evaporator water flow rate	l/h	7740	10286	11180	13726	16030	20709	24166	27142
Evaporator pressure drop	kPa	20	37	37	55	25	40	40	50
Condenser water flow rate	l/h	9365	12453	13595	16419	19034	24780	28795	32405
Condenser pressure drop	kPa	32	55	53	76	35	58	58	73
Heating capacity	Kw	53	71	77	93	107	144	165	184
Input power	Kw	13,04	17,76	19,11	22,57	23,98	33,06	37,16	42,60
Input current	A	23	29	31	37	41	57	65	75
Condenser water flow rate	l/h	9113	12175	13154	15913	18298	24705	28247	31523
Condenser pressure drop	kPa	30	52	49	72	32	58	56	70
Evaporator water flow rate	l/h	12009	16042	17343	21229	24645	33289	38175	42437
Evaporator pressure drop	kPa	49	89	92	132	61	107	101	125
<b>Energy index</b>									
E.E.R.	W/W	4,09	4,01	3,93	4,24	4,59	4,33	4,45	4,36
E.S.E.E.R.	W/W	4,72	4,53	4,58	4,54	5,62	5,43	5,42	5,00
Eurovent Class	D	D	D	D	D	C	C	C	C
C.O.P.	W/W	4,08	4,01	4,03	4,13	4,46	4,37	4,44	4,33
Eurovent Class	C	C	C	C	C	A	B	B	B
<b>Compressor</b>					SCROLL				
N° circuits/N° compressors		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Capacity control	%	50/100	50/100	50/100	50/100	50/100	50/100	50/100	50/100
<b>Geothermal side heat exchanger</b>					PLATES				
Hydraulic connections	ø	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Quantity	n°	1	1	1	1	1	1	1	1
<b>System side heat exchanger</b>					PLATES				
Hydraulic connections	ø	2"	2"	2"	2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Quantity	n°	1	1	1	1	1	1	1	1
<b>Desuperheater (optional)</b>					PLATES				
Hydraulic connections	ø	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Quantity	n°	1	1	1	1	1	1	1	1
<b>Expansion vessel (versions with pumps)</b>					-				
Expansion vessel (per circuit)	n°/l	1/8	1/8	1/8	1/8	1/12	1/12	1/12	1/12
<b>Sound data (Cooling mode)</b>									
Sound power	dB(A)	61.1	61.8	62.9	71.1	67.6	79.1	79.1	79.1
Sound pressure	dB(A)	29.1	29.8	30.9	39.1	35.6	47.1	47.1	47.1

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; Condenser water temperature (in/out) 30°C/35°C

### Heating (14511:2013)

Condenser water temperature (in/out) 40°C/45°C; Evaporator water temperature (in/out) 10°C/7°C

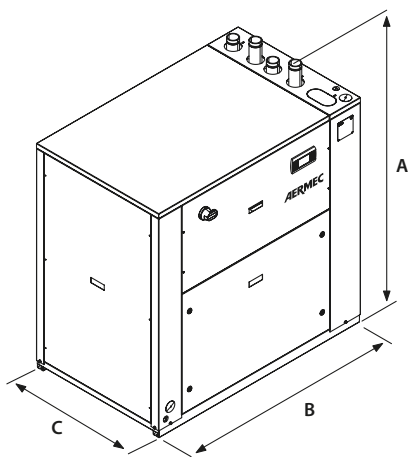
The electrical data of the versions without hydronic module integrated

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

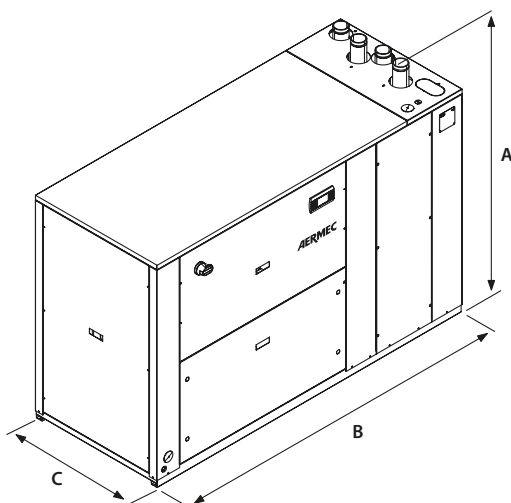
**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

Dimensions (mm)



WRLH 180-400



WRLH 500-650

WRLH Model		180	200	300	400	500	550	600	650
Height (A)	mm	1380	1380	1380	1380	1380	1380	1380	1380
Width (B)	mm	1320	1320	1320	1320	2060	2060	2060	2060
Depth (C)	mm	845	845	845	845	845	845	845	845
Weight empty	kg	370	370	381	388	522	598	708	753

# NXW

0500/1650

Chiller reversible on the water side and Evaporating unit  
Water/Water Scroll compressors  
Cooling capacity 111 kW - 510 kW  
Heating capacity 119 kW - 570 kW

HFC  
Refrigerant  
**R410A**



Aermec adheres to the EUROVENT Certification Programme: LCP  
The products concerned appear in the EUROVENT Certified Products Guide.



- **HIGH EFFICIENCY**
- **INSTALLATION VERSATILITY ALSO FOR GEOTHERMAL APPLICATIONS**
- **REVERSIBLE ON THE WATER IN HEAT PUMP**
- **OPTION OF 1 OR 2 PUMPS ON BOTH EVAPORATOR AND CONDENSER SIDE**

## Features

**NXW** is the range of water cooled that operate with refrigerant R410A. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

### Maximum energy efficiency

For years Aermec has been attentive to the energy efficiency issue, and has now designed the NXW units with the aim of ensuring high efficiency levels with both full and partial loads.

### Models available

**NXW\***: water side reversible heat pump

**NXW E**: Motoevaporating unit

**All models are available in low noise version**

### Integrated hydronic module on system side/on geothermal side

The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and the geothermal side.

### Advanced controls

The NXW controller provides several functions:

- Two chiller units in parallel (run/standby)
- Programmed pump rotation
- Inverter condenser pump control to manage the condensing pressure
- Programmable time-clock
- Automatic water set point compensation
- Data logging

### Construction details:

- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)
- High efficiency plate heat exchangers
- Compressors with high performance and low electrical input
- High and low pressure transducers as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility  
The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- User-friendly remote mounted control panel with alarm notification.

## Accessories

- **AER485P1**: RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300**: Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6**: Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18**: Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G**: Web server to monitor and remote control max. 6 units in RS485 network with

integrated GPRS modem;

**AERWEB300-18G**: Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **MULTICHILLER NXW**: Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1**: In addition to the unit mounted controller on the NXW unit a remote mounted PGD1 panel can be supplied providing the

same functions (keyboard controls and display).

- **RIF**: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. **Factory fitted only.**
- **AVX**: spring anti-vibration mounts.
- **DRE**: Soft starter (current reduction of about 30% for single circuit units, 26% for two circuit units, 22% for three circuit units). Only for 400V/3/50Hz. **Factory fitted only.**



## Accessory Compatibility

NXW	VERS.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
AER485P1	All	.	.	.	.	.	.	.	.	.	.	.	.	.
AERWEB300	All	.	.	.	.	.	.	.	.	.	.	.	.	.
MULTICHILLER_NXW	All	.	.	.	.	.	.	.	.	.	.	.	.	.
PGD1	All	.	.	.	.	.	.	.	.	.	.	.	.	.
AVX														
Water side reversible heat pump "no"	°	319	319	301	301	301	303	310	314	316	316	315	330	330
With n°1 pumps	°	320	320	320	320	320	312	651	665	653	654	654	334	337
With n°2 pumps	°	320	320	309	309	309	312	651	665	653	654	654	337	335
With n°3 pumps	°	320	320	309	309	309	312	651	665	653	654	654	340	335
With n°4 pumps	°	309	309	310	310	310	312	651	665	653	654	654	335	339
Water side reversible heat pump "L"		309	309	310	303	303	310	314	314	315	315	317	331	331
With n°1 pumps	L	321	321	311	311	651	651	652	653	654	659	659	335	338
With n°2 pumps	L	311	311	31	311	651	651	652	653	654	659	659	338	339
With n°3 pumps	L	311	311	312	312	651	651	652	653	654	659	659	339	341
With n°4 pumps	L	312	312	312	310	651	651	652	653	654	659	659	339	341
Evaporating unit "E"		319	319	301	301	301	303	310	314	316	316	315	332	332
With n°1 pumps		320	320	320	320	320	312	651	665	653	654	654	332	334
With n°2 pumps		320	320	309	309	309	312	651	665	653	654	654	332	334
With n°3 pumps		320	320	309	309	309	312	651	665	653	654	654	334	340
With n°4 pumps		309	309	310	310	310	312	651	665	653	654	654	340	340
Evaporating unit low noise versions "LE"		309	309	310	303	303	310	314	314	315	315	317	330	330
With n°1 pumps		321	321	311	311	651	651	652	653	654	659	659	336	336
With n°2 pumps		311	311	31	311	651	651	652	653	654	659	659	336	335
With n°3 pumps		311	311	312	312	651	651	652	653	654	659	659	335	339
With n°4 pumps		312	312	312	310	651	651	652	653	654	659	659	339	339
Model with total heat recovery "T"		303	303	310	310	310	314	652	315	322	322	322	331	333
Model with total heat recovery low noise versions "LT"		312	312	651	651	652	652	652	323	324	324	324	333	333
RIF	All	98	98	95	95	95	95	95	96	97	97	97	97	97
DRE	All	501	551	601	651	701	751	801	901	1001	1251	1401	1500	1650

\* Contact us.

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

### Code:

NXW

### Size:

0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650

### Field of use:

- ° - Thermostatic expansion valve with leaving water above +4 °C
- Y - Thermostatic expansion valve for low leaving liquid down to -10 °C (1)
- X - Electronic thermostatic valve, max. temp. of water produced: +4°C  
(for lower temperatures please contact us)

### Model:

- ° - water side reversible heat pump

### Version:

- ° - Standard
- L - Low Noise

### Evaporator:

- ° - Standard
- E - Evaporating unit (shipped with holding charge only)

### Heat recovery:

- ° - Without heat recovery
- D - With desuperheaters (partial heat recovery)
- T - With total heat recovery

### Power supply:

- ° - 400V 3~ 50Hz with circuit breakers
- 4 - 220V 3~ 50Hz with circuit breakers(3)
- 5 - 500V 3 50Hz with circuit breakers(4)

### Evaporator side pumps (5)

- ° - without pumps
- M - low head pump
- N - low head pump and standby pump
- O - high head pump
- P - high head pump and standby pump
- Condenser side pumps (5)
- ° - without pumps
- U - low head pump
- V - low head pump and standby pump
- W - high head pump
- Z - high head pump and standby pump
- J - low head inverter pump
- K - high head inverter pump

- (1) Options Y it's not available whit options "T"
- (2) Options T it's not available whit evaporating unit "E"; and with hydronic kit
- (3) 220V/3/50Hz only available for sizes 0500-0700
- (4) 500V/3/50Hz only available for sizes 0800-1400
- (5) Pump (P) not available for sizes 1500 and 1650  
Pumps (V and Z) not available for size 1650

## Technical Data

NXW - °/L			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
		V/ph/Hz	400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1) kW	111,6	120,5	148,4	166,3	188,2	222,0	256,9	290,7	325,0	353,9	383,8	453,0	510,2
	Total input power	(1) kW	23,1	24,9	30,7	34,4	38,9	45,6	53,0	60,3	65,5	72,7	78,7	92,6	104,0
	EER	(1)	4,83	4,83	4,84	4,84	4,83	4,87	4,84	4,82	4,89	4,87	4,88	4,89	4,91
	ESEER	(1)	6,01	6,02	6,01	6,04	6,02	6,05	6,03	6,02	6,06	6,05	6,06	6,32	6,35
	Cooling Energy Class Eurovent	(1)	B	B	B	B	B	B	B	B	B	B	B	B	B
	Water flow rate system side	(1) l/h	19234	20780	25589	28680	32458	38297	44308	50147	55986	60967	66119	78029	87900
	Pressure drop	(1) kPa	30	35	32	40	43	47	49	55	35	36	36	36	40
	Water flow rate geothermal side	(1) l/h	23050	24889	30660	34337	38871	45796	52977	60083	67075	73052	79202	93388	105118
40°C / 45°C	Pressure drop	(1) kPa	25	29	29	38	38	46	61	39	29	34	37	45	47
	Heating capacity	(2) kW	122,7	132,4	163,6	183,1	207,3	244,2	282,4	320,5	357,8	389,7	422,5	498,0	560,5
	Total input power	(2) kW	26,3	28,3	34,3	38,3	43,4	50,8	58,7	67,3	75,1	81,8	88,6	104,0	116,5
	COP	(2)	4,66	4,68	4,76	4,78	4,77	4,81	4,81	4,76	4,77	4,76	4,77	4,79	4,81
	Water flow rate system side	(2) l/h	16980	18344	22760	25509	28870	34063	39409	44603	49796	54226	58809	69402	78181
	Pressure drop	(2) kPa	23	27	25	32	34	37	39	43	28	28	28	28	32
	Water flow rate geothermal side	(2) l/h	21052	22728	28067	31427	35580	41902	48471	55002	61401	66875	72500	85466	96181
	Pressure drop	(2) kPa	36	42	39	48	52	57	59	67	42	44	44	43	48

NXW - E/LE			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
12°C / 7°C	Cooling capacity	(3) kW	105,0	113,0	139,0	156,0	177,0	209,0	241,0	273,0	305,0	332,0	360,0	425,5	478,3
	Total input power	(3) kW	24,9	26,8	33,0	36,9	41,7	48,8	56,5	64,7	72,3	78,8	85,3	100,6	112,8
	EER	(3)	4,22	4,22	4,21	4,23	4,24	4,28	4,27	4,22	4,22	4,21	4,22	4,23	4,24
	Water flow rate system side	(3) l/h	18031	19480	23988	26918	30381	35935	41488	46976	52463	57187	61909	73084	82141
	Pressure drop	(3) kPa	25	27	33	37	42	49	57	65	72	79	85	31	36

### Dati (14511:2013)

- (1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C  
(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/5°C  
(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
<b>Electrical data</b>															
Total input currente (cooling)	°	(4) A	48,3	50,6	58,4	63,0	86,0	94,0	102,0	120,0	138,0	140,0	143,0	159,6	177,5
Total input currente (heating)	°	(4) A	53,3	56,2	66,0	72,0	94,0	105,0	115,0	135,0	154,0	160,0	165,0	182,6	204,9
Total input currente (cooling)	E	(4) A	54,1	56,7	65,4	70,6	96,3	105,3	114,2	134,4	154,6	156,8	160,2	175,2	195,4
Maximum current (FLA)		(4) A	75	80	96	107	122	146	169	193	217	231	248	267,2	296,2
Starting current (LRA)		(4) A	240	245	227	238	289	319	341	398	422	490	504	601,4	630,4
<b>Scroll Compressor</b>															
Compressors / Circuit	n°/n°	3/2	3/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant	Type		R410A												
<b>Heat exchanger system side</b>															
Exchanger	Type/n°		Plate/1												
hydraulic connections (In/Out)	(4) Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
<b>Heat exchanger source side</b>															
Exchanger	Type/n°		Plate/1												
hydraulic connections (In/Out)	(4) Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
<b>Connection of Evaporating unit E</b>															
Gas line (C1+C2)	Ø	28/22	28/22	28/28	28/28	28/28	28/28	28/28	35/28	35/35	35/42	42/42	*	*	*
Liquid line (C1+C2)	Ø	28/22	28/22	28/28	28/28	28/28	28/28	28/28	35/28	35/35	35/35	35/35	*	*	*
<b>Sound data (cooling)</b>															
Sound power level	°	dB(A)	78	79	79	80	82	86	88	88	88	90	90	93	95
Sound pressure level		dB(A)	46	47	47	48	50	54	56	56	56	58	58	60	61
Sound power level	L	dB(A)	72	73	73	74	76	80	82	82	82	84	84	86	87
Sound pressure level		dB(A)	40	41	41	42	44	48	50	50	50	52	52	53	54

(4) Unit standar configuration without hydronic kit

(C1+C2) Frigorific circuit;

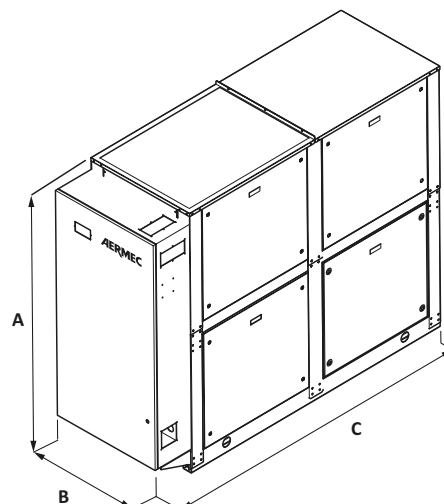
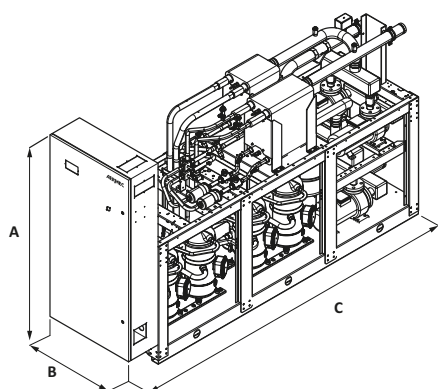
\* Contact us

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
<b>NXW ° / E</b>															
Height	A	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820	1820	1820
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	2420	2420	2420
Weight - °		kg	578	582	682	690	727	882	989	1180	1417	1461	1539	1613	1721
Weight - E		kg	525	530	610	619	638	796	904	1044	1260	1304	1358	1598	1679
<b>NXW ° / E WITH PUMP</b>															
Height	A	mm	1775	1775	1775	1775	1775	1775	1775	1820	1820	1820	1820	1820	1820
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight		kg	The weight is variable depending on the chosen hydronic kit												
<b>NXW L / LE</b>															
Height	A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	2420	2420	2420
Weight - L		kg	750	755	854	863	900	1054	1187	1378	1615	1659	1737	1811	1919
Weight - LE		kg	697	702	781	791	810	968	1104	1244	1460	1504	1558	1656	1717
<b>NXW L / LE WITH PUMP</b>															
Height	A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1820
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight		kg	The weight is variable depending on the chosen hydronic kit												

## NXW H

0500/1650

Water cooled chiller and heat pump units with scroll compressors  
Cooling capacity 106kW - 385kW  
Heating capacity 119kW - 434kW

HFC  
Refrigerant  
**R410A**



Aermec adheres to the EUROVENT Certification Programme: LCP  
The products concerned appear in the EUROVENT Certified Products Guide.



- **HIGH EFFICIENCY**
- **HEAT PUMP WITH REFRIGERANT SIDE REVERSING FOR GEOTHERMAL APPLICATIONS**
- **OPTION OF 1 OR 2 PUMPS ON BOTH EVAPORATOR AND CONDENSER SIDE**
- **PRODUCTION OF HOT WATER UP TO 55 °C**

### Characteristics

**NXW** is the range of water cooled heat pumps that operate with refrigerant R410a. They are internal units with hermetic scroll compressors that respond perfectly to the market requirements: small dimensions, ease of installation, low noise.

#### Maximum energy efficiency

For years Aermec has been attentive to the energy efficiency issue, and has now designed the NXW units with the aim of ensuring high efficiency levels with both full and partial loads.

#### Models available

**NXW°:** water side reversible heat pump  
**NXWH:** refrigerant side reversible heat pump

#### All models are available in low noise version Integrated hydronic module on system side/ on geothermal side

The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and the geothermal side.

#### Advanced controls

The NXW controller provides several functions:

- Two chiller units in parallel (run/standby)
- Programmed pump rotation
- Inverter condenser pump control to manage the condensing pressure
- Programmable time-clock
- Automatic water set point compensation
- Data logging

#### Construction details:

- Structure and base in hot dip galvanised sheet steel with epoxy paint finish (RAL 9002)
- High efficiency plate heat exchangers
- Compressors with high performance and low electrical input
- High and low pressure transducers as standard
- Conforms with Safety Directives (CE) and the standards regarding electromagnetic compatibility  
The safety of the unit is provided by the door interlocked isolator and active protection of the main components
- Externally mounted user interface with display of all operating parameters in 4 languages
- User-friendly remote mounted control panel with alarm notification.

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **MULTICHILLER\_NXW:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1:** In addition to the unit mounted controller on the NXW unit a remote mounted PGD1 panel can be supplied providing the same functions (keyboard controls and display).

- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** spring anti-vibration mounts.
- **DRE:** Soft starter (current reduction of about 30% for single circuit units, 26% for two circuit units, 22% for three circuit units). Only available for 400V-3-phase power supply. Factory fitted only.

## Accessory Compatibility

NXW	VERS.	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
AER485P1	All	.	.	.	.	.	.	.	.	.	.	.	.	.
AERWEB300	All	.	.	.	.	.	.	.	.	.	.	.	.	.
MULTICHILLER NXW	All	.	.	.	.	.	.	.	.	.	.	.	.	.
PGD1	All	.	.	.	.	.	.	.	.	.	.	.	.	.
AVX														
Model "H"	°	319	319	301	301	302	310	310	314	316	315	317	330	331
With n°1 pumps	°	320	320	320	309	309	651	651	665	654	654	654	337	336
With n°2 pumps	°	320	320	303	309	311	651	651	665	654	654	654	336	335
With n°3 pumps	°	309	309	303	311	312	651	651	665	654	654	654	335	339
With n°4 pumps	°	309	309	312	312	312	651	651	665	654	654	654	335	339
Model "HL"	L	309	309	310	303	304	314	314	315	317	317	318	331	333
With n°1 pumps	L	311	311	311	311	651	652	665	653	659	659	659	338	338
With n°2 pumps	L	311	311	312	313	651	652	665	653	659	659	659	338	341
With n°3 pumps	L	312	312	312	313	651	652	665	653	659	659	659	339	341
With n°4 pumps	L	312	312	312	313	651	652	665	653	659	659	659	341	341
RIF	All	98	98	95	95	95	95	95	96	97	97	97	97	97
DRE	All	501	551	601	651	701	751	801	901	1001	1251	1401	1500	1650

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet even the most demanding of system requirements.

### Code:

NXW

### Size:

0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650

### Field of use:

- ° - Thermostatic expansion valve with leaving water above +4 °C
- X - Electronic thermostatic valve, max. temp. of water produced: +4°C  
(for lower temperatures please contact us)

### Model:

H - refrigerant side reversible heat pump

### Version:

- ° - Standard
- L - Low Noise

### Evaporator:

- ° - Standard

### Heat recovery:

- ° - Without heat recovery
- D - With desuperheaters (partial heat recovery)

### Power supply:

- ° - 400V 3~ 50Hz with circuit breakers
- 4 - 220V 3~ 50Hz with circuit breakers (1)
- 5 - 500V 3 50Hz with circuit breakers (2)

### Evaporator side pumps (3)

- ° - without pumps
- M - low head pump
- N - low head pump and standby pump
- O - high head pump
- P - high head pump and standby pump

### Condenser side pumps (3)

- ° - without pumps
- U - low head pump
- V - low head pump and standby pump
- W - high head pump
- Z - high head pump and standby pump
- J - low head inverter pump
- K - high head inverter pump

(1) only available for sizes 0500-0700

(2) only available for sizes 0800-1000

(3) Pump (P) not available for sizes 1500 and 1650  
Pumps (V and Z) not available for size 1650

## Technical Data

NXW - H/HL			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650	
V/ph/Hz			400V/3/50Hz													
12°C / 7°C	Cooling capacity	(1) kW	105,7	113,7	140,6	159,5	180,5	211,3	242,1	277,3	313,3	341,2	369,1	422,9	476,2	
	Total input power	(1) kW	23,9	25,8	31,2	35,4	40,2	47,1	54,2	62,2	70,4	76,6	82,8	94,8	106,7	
	EER	(1)	4,42	4,40	4,50	4,51	4,49	4,48	4,46	4,46	4,45	4,45	4,46	4,46	4,46	
	ESEER	(1)	5,73	5,71	5,76	5,85	5,76	5,79	5,64	5,72	5,85	5,77	5,80	5,99	6,00	
	Cooling Energy Class Eurovent	(1)	C	C	C	C	C	C	C	C	C	C	C	C	C	
	Water flow rate system side	(1) l/h	18204	19578	24215	27478	31084	36408	41732	47743	53925	58734	63543	72805	81991	
	Pressure drop	(1) kPa	17	20	19	24	24	29	38	24	19	22	24	29	30	
	Water flow rate geothermal side	(1) l/h	22176	23857	29406	33338	37749	44204	50642	58087	65704	71524	77344	88560	99717	
	Pressure drop	(1) kPa	25	29	28	36	36	43	56	37	28	32	34	41	44	
	Heating capacity	(2) kW	118,6	127,6	157,4	178,4	202,1	236,6	271,0	311,1	352,0	383,1	414,3	474,3	534,0	
40°C / 45°C	Total input power	(2) kW	27,5	29,6	35,3	39,8	45,3	53,0	60,5	70,3	80,1	87,0	93,8	107,1	120,5	
	COP	(2)	4,31	4,31	4,46	4,48	4,46	4,47	4,48	4,42	4,40	4,41	4,42	4,43	4,43	
	Heating Energy Class Eurovent		A	A	A	A	A	A	A	A	A	A	A	A	A	
	Water flow rate system side	(2) l/h	16070	17283	21538	24440	27648	32383	37118	42464	47963	52240	56517	64756	72926	
	Pressure drop	(2) kPa	13	16	15	19	19	23	30	19	15	17	19	23	24	
	Water flow rate geothermal side	(2) l/h	20348	21893	27013	30618	34677	40604	46513	53385	60408	65750	71092	81387	91636	
	Pressure drop	(2) kPa	21	25	24	30	30	36	47	30	24	28	30	36	38	
	Performance under average climatic conditions (Average)															
	Pdesignh (55°C)	(3)	161	175	213	241	271	320	368	/	/	/	/	/	/	/
	SCOP	(3)	4,93	4,93	4,95	4,95	4,95	4,90	4,83	/	/	/	/	/	/	/
ηs	(3)	189	189	190	190	190	188	185	/	/	/	/	/	/	/	

### Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

(3) Efficiencies for average temperature Applications (55°C)

Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 400kW

		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650	
Electrical data															
Total input current (cooling)	° (4)	A	49,0	52,0	60,0	65,0	87,0	95,0	104,0	122,0	140,0	144,0	147,0	164,2	183,4
Total input current (heating)	(4)	A	53,3	56,2	65,1	71,0	92,7	105,0	115,0	133,1	151,9	157,8	162,7	182,5	203,9
Maximum current (FLA)	(4)	A	75	80	75	107	122	146	169	193	217	231	248	267	296
Starting current (LRA)	(4)	A	240	245	240	238	289	319	341	398	422	490	504	601	630
Scroll Compressor															
Compressors / Circuit		n°/n°	3/2	3/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2	4/2
Refrigerant		Type	R410A												
Heat exchanger system side															
Exchanger		Type/n°	Plate/1												
hydraulic connections (In/Out)	(4)	Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
Heat exchanger source side															
Exchanger		Type/n°	Plate/1												
hydraulic connections (In/Out)	(4)	Type/Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	3"	3"	3"	3"	3"	3"
Sound data (cooling mode)															
Sound power level	°	dB(A)	78	79	79	80	82	86	88	88	88	90	90	93	95
Sound pressure level		dB(A)	46	47	47	48	50	54	56	56	56	58	58	60	61
Sound power level	L	dB(A)	72	73	73	74	76	80	82	82	82	84	84	86	87
Sound pressure level		dB(A)	40	41	41	42	44	48	50	50	50	52	52	53	54

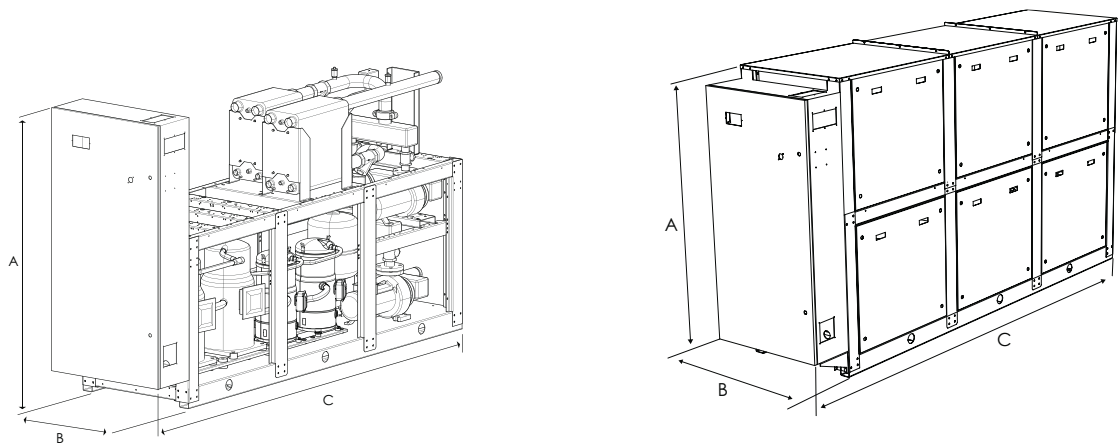
(4) Unit standar configuration without hydronic kit

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

Dimensions (mm)



			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
<b>NXW H</b>															
Height	A	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820	1820	1820
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	2420	2420	2420
Weight		kg	628	633	734	743	791	948	1042	1275	1545	1577	1657	1687	1825
<b>NXW H WITH PUMP</b>															
Height	A	mm	1775	1775	1775	1775	1775	1775	1775	1820	1820	1820	1820	1820	1820
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight		kg	The weight is variable depending on the chosen hydronic kit												
<b>NXW HL</b>															
Height	A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	2420	2420	2420
Weight		kg	801	805	907	915	963	1121	1240	1473	1743	1774	1855	1885	2023
<b>NXW HL WITH PUMP</b>															
Height	A	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1820
Width	B	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
Length	C	mm	3020	3020	3020	3020	3020	3480	3480	3480	3480	3480	3480	3480	3480
Weight		kg	The weight is variable depending on the chosen hydronic kit												



# WS

**Water cooled chiller, reversible water side and Evaporating unit**  
**For indoor installation**  
**Screw compressor and plate exchanger**  
**Cooling capacity 148 - 699 kW**  
**Heating capacity 165 - 777 kW**

**HFC**  
 Refrigerant  
**R134a**



Aermec participates in the EUROVENT Program: LCP  
 The products of interest can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **HIGH EFFICIENCY ALL IN CLASS A EUROVENT**
- **OPTIMISED FOR LOW CONDENSER TEMPERATURES**
- **REVERSIBLE ON HYDRAULIC SIDE IN HEAT PUMP**
- **GEOTHERMAL APPLICATIONS**

## Features

Units for internal installation offering chilled/hot water (reversible on the water side).

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm. The screw compressors are optimized for low condensing temperatures, plate heat exchangers are applied on both the system and source side.

The base and frame are in steel treated with anti-corrosion polyester paint.

The technical solutions applied, aimed at maximizing efficiency and quality levels, allow EER levels of  $\geq 5,05$  to be achieved (class A according to Eurovent).

## Versions

**WS** Standard reversible water side  
**WS\_E** Evaporating unit

- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100% with standard thermostatic expansion valve. (25 to 100% with electronic expansion valve option)
- For all versions, if required, it is available the integral acoustic enclosure, which can further reduce the sound level.
- Unit available with total recovery / Desuperheater
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- Modulating capacity control microprocessor system
- Independent control for individual circuits
- Electrical panel with all cables numbered
- Modulating capacity control with dynamic

display of refrigeration capacity

- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0-10 V or an external air sensor.
- Auto-adaptive differential to ensure correct compressor operating timers.
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation).

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **PRV3:** Remote control of the chiller operating functions.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** Spring anti-vibration mounts.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC

and an ethernet connection over a common browser; 4 versions available:

- AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
- AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
- AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network

with integrated GPRS modem;

- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AKW: ACOUSTIC KIT:** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

## Accessory compatibility

Mod	Vers.	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•	•	•
AER485P1		•	•	•	•	•	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
RIF		-	161	161	201	241	161(x2)	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)	301(x2)
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	°/L	651	651	652	652	656	658	658	658	659	667	661	661	661
AKW	L	•	•	•	•	•	•	•	•	•	•	•	•	•

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

**Field**  
**1,2**      **Code**  
            **WS**

**3,4,5,6**    **Size**  
                 0601-0701-0801-0901-1101-1202-1402-1602-1802-2002-2202-2502-2802

**7**            **Field of use (1)**  
               ° Standard (temperature of water produced up to +4 °C)  
**X** Electronic thermostatic valve (temperature of water produced up to +4 °C)  
**Y** Low temperature (temperature of water produced from +4°C a -6°C)  
**Z** Low temperature electronic thermostatic valve (temperature of water produced from +4°C a -6°C)

**8**            **Model**  
               ° Only cooling

**9**            **Heat recovery (2)**  
               ° Without heat recovery  
**D** With desuperheater  
**T** With total recovery

**10**          **Versions**  
               ° Standard  
**L** Low noise

**11**          **Heat exchanger**  
               ° PED regulation  
**E** Evaporating unit (delivered with holding charge only)

**12**          **Power supply**  
               ° 400/3/50Hz  
**8** 400V/3/50Hz with circuit breakers  
**2** 230V/3/50Hz with fuses  
**4** 230V/3/50Hz with circuit breakers  
**5** 500V/3/50Hz with fuses  
**9** 500V/3/50Hz with circuit breakers

(1) YD / ZD contact Aermec for availability;

YT / ZT not compatible

(2) ET not compatible

## Technical Data

WS - °/L			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
		V/ph/Hz	400V/3/50Hz												
12°C / 7°C	Cooling capacity	(1) kW	148	187	212	234	299	308	369	421	469	545	599	653	699
	Total input power	(1) kW	29	37	42	46	59	61	73	83	93	107	117	128	137
	EER	(1)	5,06	5,09	5,06	5,07	5,09	5,09	5,06	5,06	5,06	5,10	5,11	5,10	5,11
	ESEER	(1)	5,62	5,72	5,98	5,90	5,88	5,98	6,04	6,12	6,04	5,83	5,96	6,03	5,97
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate system side	(1) l/h	25421	32148	36495	40212	51430	53088	63476	72492	80788	93813	103143	112508	120438
	Pressure drop	(1) kPa	23	17	15	16	18	33	25	27	30	33	35	39	44
	Water flow rate geothermal side	(1) l/h	30001	37968	43166	47545	60777	62583	75000	85654	95422	110603	121544	132559	141772
40°C / 45°C	Pressure drop	(1) kPa	33	23	22	22	25	47	36	39	43	48	52	58	65
	Heating capacity	(2) kW	159	198	225	248	318	330	389	445	496	575	632	695	743
	Total input power	(2) kW	37	46	52	58	73	78	91	104	115	133	145	160	170
	COP	(2)	4,24	4,33	4,29	4,31	4,34	4,25	4,29	4,29	4,30	4,34	4,35	4,35	4,37
	Water flow rate system side	(2) l/h	27169	33945	38474	42555	54526	56400	66645	76147	84899	98460	108201	118879	127104
	Pressure drop	(2) kPa	27	19	17	18	21	39	29	31	35	39	42	47	53
	Water flow rate geothermal side	(2) l/h	21193	26598	30056	33295	42740	44032	52095	59528	66427	77278	84976	93439	100083
	Pressure drop	(2) kPa	16	11	10	11	12	23	17	18	20	23	24	27	31
Performance under average climatic conditions (Average)															
Pdesignh		(3)	229	290	330	363	/	/	/	/	/	/	/	/	/
SCOP		(3)	5,98	6,10	6,30	6,25	/	/	/	/	/	/	/	/	/
ηs		(3)	231	236	244	242	/	/	/	/	/	/	/	/	/

### Date (14511:2013)

- (1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C
- (2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/5°C
- (3) Efficiencies for low temperature Applications (35°C), according to regulation n°811/2013 Pdesignh ≤ 400kW

WS - E/LE			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802	
12°C / 7°C	Cooling capacity	(4)	kW	134,50	167,91	189,23	216,74	264,40	276,73	333,22	380,99	431,69	489,77	542,53	591,70	629,62
	Total input power	(4)	kW	34,67	42,20	48,25	54,95	67,05	69,32	84,39	96,50	109,90	122,01	134,11	146,84	157,00
	EER	(4)		3,88	3,98	3,92	3,94	3,94	3,99	3,95	3,95	3,93	4,01	4,05	4,03	4,01
	Water flow rate system side	(4)	l/h	23108	28849	32512	37238	45428	47546	57251	65458	74169	84147	93212	101661	108175
	Pressure drop	(4)	kPa	18	13	12	12	14	25	19	20	23	25	27	30	34

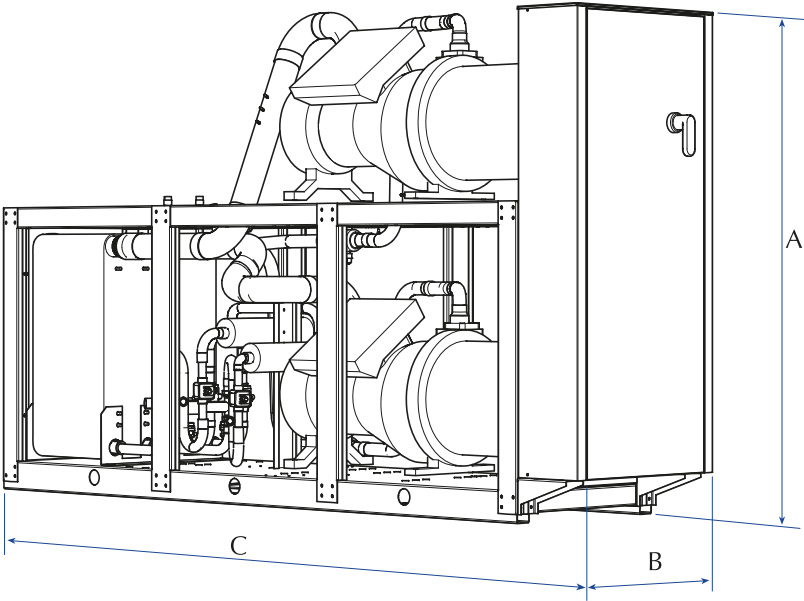
- (4) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802	
Electrical data															
Total input currente (cooling) Total input currente (heating) Total input currente (cooling) Maximum current (FLA) Starting current (LRA)	°	A	55,8	66,7	74,5	83,3	95,3	110,0	133,2	149,2	167,1	179,0	190,5	218,5	235,2
		A	68,0	79,2	89,1	100,5	117,0	133,6	158,4	178,5	201,5	218,1	234,1	265,9	285,6
	E	A	63	75	85	96	111	127	151	170	192	207	222	252	270
		A	72	84	96	109	130	144	169	191	218	239	260	294	315
	A	147	140	163	192	246	194,1	198	228	263	317	325	388	448	
Screw Compressor															
Compressors / Circuit	n°/n°	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Type	R134a													
Heat exchanger system side															
Exchanger	Type/n°	Plate/1													
hydraulic connections (In/Out)	(4) Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Heat exchanger source side															
Exchanger	Type/n°	Plate/1													
hydraulic connections (In/Out)	(4) Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Sound data (Cooling mode)															
Sound power level Sound pressure level Sound power level Sound pressure level	°	dB(A)	86	87	87	88	87	89	90	90	91	90	90	91	92
		dB(A)	54	55	55	56	55	57	58	58	59	59	58	59	60
	L	dB(A)	78	79	79	80	78	81	82	82	83	82	81	83	84
		dB(A)	46	47	47	48	47	49	50	50	51	50	50	51	52

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required by Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
WS °															
Height	A	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
Width	B	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
Length	C	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Weight - °		kg	1101	1251	1301	1357	1788	1738	2072	2141	2213	2649	3051	3131	3131
WS L															
Height	A	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
Width	B	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
Length	C	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Weight - L		kg	1229	1379	1429	1485	1934	1966	2300	2369	2441	2906	3308	3388	3388

## HWS

HFC  
Refrigerant  
**R134a**



Aermec participates in the EUROVENT Program: LCP  
The products of interest can be found on the website [www.eurovent-certification.com](http://www.eurovent-certification.com)

**Water cooled chiller reversible water side, and Evaporating unit**  
**For indoor installation**  
**Screw compressor and plate exchanger**  
**Cooling capacity 146 - 712 kW**  
**Heating capacity 161 - 771 kW**



## • REVERSIBLE ON HYDRAULIC SIDE IN HEAT PUMP • GEOTHERMAL APPLICATIONS

### Features

Units for internal installation offering chilled/hot water (reversible on the water side). Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm. The screw compressors are optimized for low condensing temperatures, plate heat exchangers are applied on both the system and source side. The base and frame are in steel treated with anti-corrosion polyester paint.

### Versions

**HWS** Standard reversible water side

**HWS\_E** Evaporating unit

- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100% with standard thermostatic expansion valve. (25 to 100% with electronic expansion

- valve option)
- For all versions, if required, it is available the integral acoustic enclosure, which can further reduce the sound level.
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- Modulating capacity control microprocessor system
- Independent control for individual circuits
- Electrical panel with all cables numbered
- Modulating capacity control with dynamic display of refrigeration capacity
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using ana-

logue inputs 4-20 mA or 0-10 V or an external air sensor.

- Auto-adaptive differential to ensure correct compressor operating timers.
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation).

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **PRV3:** Remote control of the chiller operating functions.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** Spring anti-vibration mounts.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC

and an ethernet connection over a common browser; 4 versions available:

- AERWEB300-6: Web server to monitor and remote control max. 6 units in RS485 network;
- AERWEB300-18: Web server to monitor and remote control max. 18 units in RS485 network;
- AERWEB300-6G: Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
- AERWEB300-18G: Web server to monitor and remote control max. 18 units in RS485 network

with integrated GPRS modem;

- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AKW: ACOUSTIC KIT:** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

## Accessory compatibility

Mod	Vers.	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•	•	•
AER485P1		•	•	•	•	•	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
RIF		-	161	161	201	241	-	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)	301(x2)
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	°/L	651	651	652	652	656	658	658	658	659	667	661	661	661
	E	-	668	668	668	669	-	670	670	670	671	672	672	672
	D	-	651	652	652	654	-	658	659	659	667	661	661	661
	DE	-	668	668	668	669	-	670	670	670	671	672	672	672
	T	-	652	655	655	657	-	662	662	662	663	664	664	664
AKW		•	•	•	•	•	•	•	•	•	•	•	•	•

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

- |                |   |
|----------------|---|
| <b>Field</b>   | <b>Code</b>   |
| <b>1,2,3</b>   | <b>HWS</b>  |
| <b>3,4,5,6</b> | <b>Size</b><br>0601-0701-0801-0901-1101-1202-1402-1602-1802-2002-2202-2502-2802   |
| <b>7</b>       | <b>Field of use</b> <ul style="list-style-type: none"> <li>° Standard (temperature of water produced up to +4 °C)</li> </ul> <b>X</b> Electronic thermostatic valve (temperature of water produced up to +4 °C)<br>(for lower temperatures please contact us)                                       |
| <b>8</b>       | <b>Model</b> <ul style="list-style-type: none"> <li>° Only cooling</li> </ul>   |
| <b>9</b>       | <b>Heat recovery (1)</b> <ul style="list-style-type: none"> <li>° Without heat recovery</li> </ul> <b>D</b> With desuperheater<br><b>T</b> With total recovery  |
| <b>10</b>      | <b>Versions</b> <ul style="list-style-type: none"> <li>° Standard</li> </ul> <b>L</b> Low noise   |
|                | <b>Heat exchanger (2)</b> <ul style="list-style-type: none"> <li>° PED regulation</li> </ul> <b>E</b> Evaporating unit (delivered with holding charge only)   |
| <b>11</b>      | <b>Power supply (3)</b> <ul style="list-style-type: none"> <li>° 400/3/50Hz</li> </ul> <b>8</b> 400V/3/50Hz with circuit breakers<br><b>2</b> 230V/3/50Hz with fuses<br><b>4</b> 230V/3/50Hz with circuit breakers<br><b>5</b> 500V/3/50Hz with fuses<br><b>9</b> 500V/3/50Hz with circuit breakers |

(1) The desuperheater and total recovery are not available for sizes 0601 and 1202; T are not compatible with E

(2) The size 0601 and 1202 they can not be motoevaporating

(3) For size 2502 and 2802 no 230V/3/50Hz

## Technical Data

HWS - °/L			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
V/ph/Hz			400V/3/50Hz												
12 °C / 7 °C	Cooling capacity	(1) kW	146,4	179,0	212,0	233,0	293,0	293,0	356,0	422,0	468,0	527,0	586,0	660,0	712,0
	Total input power	(1) kW	31,8	38,1	43,2	49,3	59,7	63,5	76,8	86,5	101,0	110,7	120,5	137,7	148,2
	EER	(1)	4,61	4,69	4,91	4,74	4,91	4,61	4,63	4,87	4,64	4,76	4,86	4,8	4,8
	ESEER		5,12	5,29	5,55	5,37	5,55	5,20	5,25	5,49	5,23	5,35	5,44	5,33	5,29
	Cooling Energy Class Eurovent	(1)	C	B	B	B	B	C	C	B	C	B	B	B	B
	Water flow rate system side	(1) l/h	25284	30788	36636	40248	50568	50568	61404	72756	80840	90988	101136	114036	122980
	Pressure drop	(1) kPa	29	20	20	19	23	38	36	40	41	45	48	53	62
	Water flow rate geothermal side	(1) l/h	30268	36834	43499	48091	60045	60535	73496	86318	96690	108308	119927	135441	145856
Pressure drop	(1) kPa	40	27	27	26	31	53	50	55	58	62	67	75	88	
40 °C / 45 °C	Heating capacity	(2) kW	161,0	192,0	219,0	246,0	309,0	320,0	376,0	435,0	493,0	559,0	627,0	690,0	771,0
	Total input power	(2) kW	36,9	44,1	48,9	56,9	71,2	73,8	87,9	99,2	113,6	129,0	143,6	155,2	178,0
	COP	(2)	4,35	4,35	4,47	4,32	4,34	4,34	4,28	4,39	4,34	4,33	4,37	4,44	4,33
	Water flow rate system side	(2) l/h	27520	32852	37496	42140	52976	54868	64500	74648	84452	95804	107500	118164	131924
	Pressure drop	(2) kPa	31	41	20	19	24	42	36	39	42	46	50	55	74
	Water flow rate geothermal side	(2) l/h	21638	25826	29653	32990	41538	43103	50448	58798	66315	75216	84624	93491	103819
	Pressure drop	(2) kPa	19	12	12	12	14	25	22	24	25	27	29	32	44
	Performance under average climatic conditions (Average)														
Pdesignh	(3)	215	257	293	330	/	/	/	/	/	/	/	/	/	/
SCOP	(3)	4,55	4,60	4,73	4,58	/	/	/	/	/	/	/	/	/	/
ηs	(3)	174	176	181	175	/	/	/	/	/	/	/	/	/	/

### Date (14511:2013)

- (1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C  
 (2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/5°C  
 (3) Efficiencies for low temperature Applications (35°C), according to regulation n°811/2013 Pdesignh ≤ 400kW

HWS - E/LE			701	801	901	1101	1402	1602	1802	2002	2202	2502	2802
12°C / 7°C	Cooling capacity	(4) kW	163	192	212	263	326	385	428	481	539	601	676
	Total input power	(4) kW	41	47	54	66	82	93	108	120	132	146	159
	EER	(4)	3.98	4.09	3.93	3.98	3.98	4.14	3.96	4.00	4.08	4.12	4.25
	Water flow rate system side	(4) l/h	28040	33020	36460	45240	56070	66220	73620	82790	92710	103370	116270
	Pressure drop	(4) kPa	18	18	17	21	33	37	38	40	45	49	59

- (4) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802	
Electrical data															
Total input current (cooling) Total input current (heating) Total input current (cooling) Maximum current (FLA) Starting current (LRA)	°	A	56	66	74	82	101	112	132	148	164	184	203	233	233
		A	67	73	82	91	117	133	146	164	183	209	235	257	258
	E	A	/	72	81	90	113	/	144	162	180	204	226	254	272
		A	105	124	144	162	182	210	248	288	324	344	364	430	430
		A	180	163	192	229	300	285	287	336	391	462	482	575	575
Screw Compressor															
Compressors / Circuit		n°/n°	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Type	R134a												
Heat exchanger system side															
Exchanger		Type/n°	Plate/1												
hydraulic connections (In/Out)		(4) Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Heat exchanger source side															
Exchanger		Type/n°	Plate/1												
hydraulic connections (In/Out)		(4) Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Sound data															
Sound power level	°	dB(A)	85	86	86	86	92	88	89	89	89	93	95	95	95
		dB(A)	53	54	54	54	60	56	57	57	57	61	63	63	63
Sound power level	L	dB(A)	77	78	78	78	84	80	81	81	81	85	87	87	87
		dB(A)	45	46	46	46	52	48	49	49	49	53	55	55	55
Sound power level	E	dB(A)	/	86	86	86	92	/	89	89	89	93	95	95	95
		dB(A)	/	54	54	54	60	/	57	57	57	61	63	63	63
Sound power level	LE	dB(A)	/	78	78	78	84	/	81	81	81	85	87	87	87
		dB(A)	/	46	46	46	52	/	49	49	49	53	55	55	55

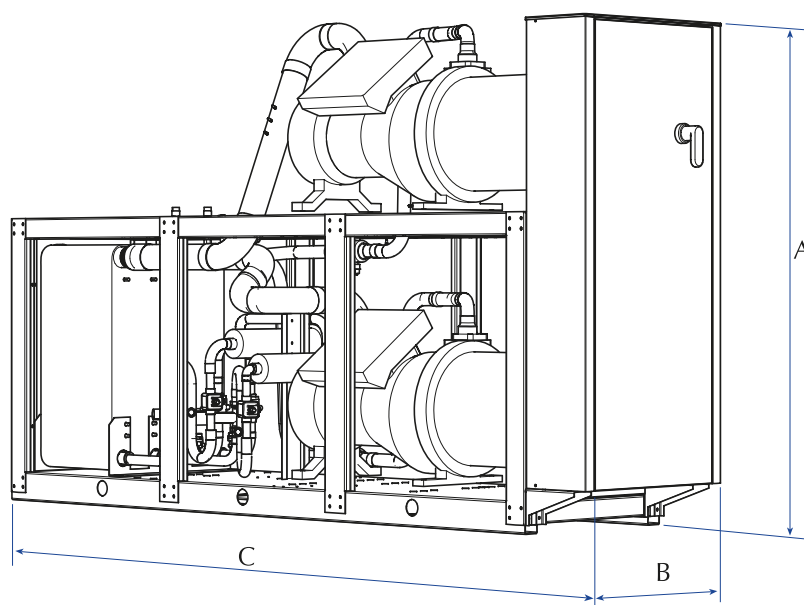
**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



## Dimensions (mm)



Mod WSA (°E - L)		0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Height (A) ° - E	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
Height (A) L - LE	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
Length (C)	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Weight	kg (°)	1101	1251	1301	1357	1788	1738	2028	2097	2169	2598	3000	3095	3095
	kg (L)	1229	1379	1429	1485	1934	1966	2256	2325	2397	2855	3257	3352	3352
	kg (D/DE)	-	1479	1529	1585	2045	-	2256	2325	2397	2855	3257	3352	3352

Mod WSA (° - L)		0601 T	0701 T	0801 T	0901 T	1101 T	1202 T	1402 T	1602 T	1802 T	2002 T	2202 T	2502 T	2802 T
Height (A) °	mm	-	2000	2000	2000	2000	-	2050	2050	2050	2050	2065	2065	2065
Height (A) L	mm	-	2120	2120	2120	2120	-	2120	2120	2120	2120	2120	2120	2120
Width (B)	mm	-	810	810	810	810	-	1250	1250	1250	1250	1250	1250	1250
Length (C)	mm	-	2960	2960	2960	3360	-	3060	3060	3060	3460	3460	3460	3460
Weight	kg	-	1479	1529	1585	2045	-	2294	2363	2435	2894	3296	3391	3391

## WSH

**Water cooled reverse cycle heat pumps with twin-rotor screw compressor**  
**Cooling capacity 166 - 668kW**  
**Heating capacity 190 - 819kW**

**HFC**  
 Refrigerant  
**R134a**



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **REFRIGERANT REVERSING VALVE**
- **OPTIONAL ELECTRONIC EXPANSION VALVE WHICH ALLOWS:**
  - **COOLING DOWN TO  $-6^{\circ}\text{C}$**
  - **MODULATING CAPACITY CONTROL 25–100%**

### Characteristics

- Available in 10 sizes (4 sizes single compressor and 6 sizes dual compressor)
- Manufactured with refrigerant R134a
- Versions for cooling only - heat pump with refrigerant reversing valve
- Partial heat recovery option
- Standard Version (°):
  - leaving water temperature up to  $55^{\circ}\text{C}$  in heat pump mode
- Version X:
  - leaving liquid temperature down to  $-6^{\circ}\text{C}$
- Version L:
  - low noise
- High efficiency, low noise screw compressors with modulating capacity control from 40 to 100% with standard thermostatic expansion valve. (25 to 100% with electronic expansion valve option)
- Compressor discharge and liquid line isolating valves
- Current transformer as standard for each compressor
- Dual refrigerant circuit plate heat exchanger optimised for R134a on dual compressor units
- Modulating capacity control microprocessor system
- Independent control for individual circuits
- Electrical panel with all cables numbered
- Modulating capacity control with dynamic display of refrigeration capacity
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0-10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Compact dimensions
- Multilingual display panel
- Metal control panel with anti-corrosion polyester paint

### Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **PRV3:** Remote control of the chiller operating functions.
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current. Must be requested at time of order and is available factory fitted only.
- **AVX:** Spring anti-vibration mounts.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network with integrated GPRS modem;
  - AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **SAP:** A series of remote buffer tanks and pumps are available. Refer to the technical manual.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AKW:** ACOUSTIC KIT: Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.

## Accessory compatibility

Mod	Vers.	0701	0801	0901	1101	1402	1602	1802	2002	2202	2502
AERWEB300	-	•	•	•	•	•	•	•	•	•	•
MULTICHILLER	-	•	•	•	•	•	•	•	•	•	•
AER485P1	-	•	•	•	•	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
RIF	-	161	161	201	241	161(x2)	161(x2)	201(x2)	201-241	241(x2)	301(x2)
PRV3	-	•	•	•	•	•	•	•	•	•	•
	°/L	665	665	665	666	662	662	662	663	664	664
AVX	D	665	665	665	666	662	662	662	663	664	664
AKW	L	•	•	•	•	•	•	•	•	•	•

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

### Code:

WSH

### Size:

0701, 0801, 0901, 1101, 1402, 1602, 1802, 2002, 2202, 2502

### Expansion device:

- ° - Standard, minimum leaving water temperature down to +4 °C
- X - With electronic expansion valve that allows:
  - Leaving liquid temperature down to -6 °C
  - Modulating capacity control (25 - 100%)

### Model:

- ° - Standard

### Heat recovery:

- ° - Without heat recovery
- D - With desuperheaters (partial heat recovery)

### Version:

- ° - Standard
- L - Low noise

### Condenser:

- ° - PED regulation

### Power supply (1)

- ° - 400V 3~ 50Hz with fuses
- 8 - 400V 3~ 50Hz with circuit breakers
- 2 - 230V 3~ 50Hz with fuses
- 4 - 230V 3~ 50Hz with circuit breakers
- \* (not available for size 2502)
- 5 - 500V 3~ 50Hz with fuses
- 9 - 500V 3~ 50Hz with circuit breakers

(1) 230V/3/50Hz is not available for size 2502

## Technical Data

WSH - °/L			701	801	901	1101	1402	1602	1802	2002	2202	2502
		V/ph/Hz	400V/3/50Hz									
12°C / 7°C	Cooling capacity	(1) kW	166	195	216	269	359	426	464	524	591	668
	Total input power	(1) kW	37,14	42,31	48,35	58,78	79,23	92,02	103,47	114,87	127,11	146,9
	EER	(1)	4,46	4,62	4,48	4,58	4,53	4,63	4,49	4,56	4,65	4,55
	Cooling Energy Class Eurovent	(1)	C	B	C	B	B	B	B	B	B	B
	Water flow rate system side	(1) l/h	28552	33712	37324	46440	61920	73616	80152	90472	102168	115584
	Pressure drop	(1) kPa	23	24	22	27	43	47	48	59	65	74
	Water flow rate geothermal side	(1) l/h	34434	40411	45004	55754	74338	87995	96329	108273	121776	138133
	Pressure drop	(1) kPa	30	31	30	36	57	62	65	79	88	101
40°C / 45°C	Heating capacity	(2) kW	190	218	247	312	438	511	563	647	730	819
	Total input power	(2) kW	45,84	52,05	59,19	75,13	104,03	123,32	133,01	153,87	173,98	190,54
	COP	(2)	4,15	4,2	4,17	4,15	4,21	4,14	4,23	4,2	4,2	4,3
	Heating Energy Class Eurovent	(2)	B	B	B	B	B	B	B	B	B	A
	Water flow rate system side	(2) l/h	32651	37468	42286	53526	74937	87426	96346	110620	124894	139881
	Pressure drop	(2) kPa	26	25	25	31	61	67	68	77	85	97
	Water flow rate geothermal side	(2) l/h	42361	48746	54856	69480	98039	113923	126325	144907	163764	184907
	Pressure drop	(2) kPa	46	46	43	55	82	89	89	98	110	122
Performance under average climatic conditions (Average)												
	Pdesignh	(3)	249	285	322	/	/	/	/	/	/	/
	SCOP	(3)	4,20	4,25	4,23	/	/	/	/	/	/	/
	ηs	(3)	160	162	161	/	/	/	/	/	/	/

### Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/7°C

(3) Efficiencies for average temperature Applications (55°C)

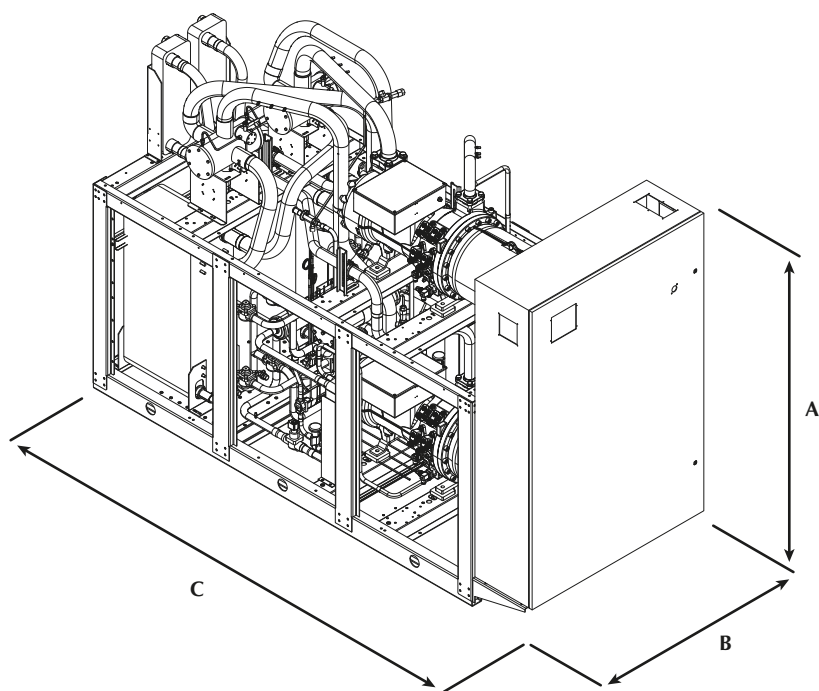
Efficiency Energy Class in according to regulation n°811/2013 Pdesignh ≤ 400kW

		701	801	901	1101	1402	1602	1802	2002	2202	2502
Electrical data											
Total input current (cooling)	A	65	73	80.6	100	135	146.5	162	187.5	210	242
Total input current (heating)	A	81	91	101	130.5	178.5	210	221	256.5	291	320
Maximum current (FLA)	A	124	144	162	182	248	288	324	344	364	430
Starting current (LRA)	A	163	192	229	300	287	336	391	462	482	575
Screw Compressor											
Compressors / Circuit	n°/n°	1/1	1/1	1/1	1/1	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	Type	R134a									
Heat exchanger system side											
Exchanger	Type/n°	Plate/1									
hydraulic connections (In/Out)	Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Heat exchanger source side											
Exchanger	Type/n°	Plate/1									
hydraulic connections (In/Out)	Type/Ø	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"
Sound data (Cooling mode)											
Sound power level	dB(A)	86	86	86	92	89	89	89	93	95	95
Sound pressure level	dB(A)	54	54	54	60	57	57	57	61	63	63

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



Mod WSH			0701	0801	0901	1101	1402	1602	1802	2002	2202	2502
Height (A)	(°)	mm	1980	1980	1980	2060	2000	2000	2000	2000	2060	2060
	L	mm	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width (B)		mm	810	810	810	810	1260	1260	1260	1260	1260	1260
Length (C)		mm	2960	2960	2960	3360	3060	3060	3060	3460	3460	3460
Weight (empty)		kg (°)	1391	1443	1506	1946	2276	2350	2423	2872	3309	3407
		kg (D)	1622	1674	1737	2200	2542	2616	2689	3168	3605	3703

# WF

**Chillers,  
Water/Water indoor installation  
with twin-rotor screw compressor**  
Cooling capacity 630 - 2331kW  
Heating capacity 676 - 2484kW

**HFC**  
Refrigerant  
**R134a**



Aermec  
participate in the EUROVENT  
program: LCP  
the products are present on the site  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



- **OPTIMISED FOR LOW CONDENSER TEMPERATURES**  
for example: units working in cooling mode with ground or tower water, or units working in heat pump mode with low leaving water temperature
- **MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 50°C**
- **STANDARD ELECTRONIC EXPANSION VALVE**

## Characteristics

### Version

- **WF\_°** Standard chillers
- **WF\_A** High efficiency version
- **Operational limits (1)**
- condenser leaving water temperature up to 50 °C
- evaporator leaving liquid temperature down to -6 °C
- Two independent refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 12,5 a 100% for each compressor)
- Shell and tube evaporator optimised for refrigerant R134a
- **Standard electronic expansion valve**
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 50 °C (with hydraulic system reversing) and with ground water or geothermal loops. **For heating mode operation the IS accessory, condenser**

### isolating valves, is required

- **Options available:**
- partial heat recovery
- total heat recovery
- evaporating unit
- low noise unit with compressor acoustical enclosures made from galvanised steel and high density sound absorbent material
- **Modulating capacity control microprocessor system**
- Redundancy of the unit (one microprocessor per circuit)
- Leaving water temperature control with modulating capacity control (12.5-100% for each compressor) and dynamic display of the refrigeration capacity
- Condensing control based on pressure with 0-10 Vdc signal for controlling a modulating valve / variable speed pump
- Electrical panel with all cables numbered

- Current transformer as standard for each compressor
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0-10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Multilingual display panel

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;  
**AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network

- with integrated GPRS modem;  
**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;
- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

**Accessories factory fitted only**

- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
- **AKW: ACOUSTIC KIT. (only for Versions L)** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

## Compatibility of accessories

Mod	Vers	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•
Compatibility AVX													
standard / standard Low noise													
Mod WF		2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°	6713°	7213°	8413°	9613°
AVX		673	673	673	674	674	674	675	675	689	689	689	689
Mod WF		2512°L	2812°L	3212°L	3612°L	4212°L	4812°L	5612°L	6412°L	6713°L	7213°L	8413°L	9613°L
AVX		673	673	674	674	674	674	675	675	689	689	689	689
High efficiency/High efficiency low noise													
Mod WF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A	6713A	7213A	8413A	9613A
AVX		673	673	674	675	675	675	676	676	690	690	691	691
Mod WF		2512AL	2812AL	3212AL	3612AL	4212AL	4812AL	5612AL	6412AL	6713AL	7213AL	8413AL	9613AL
AVX		674	674	675	675	675	675	676	676	690	690	691	691
Accessories factory fitted only													
RIF (RIFWF)		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AKW	(1)	•	•	•	•	•	•	•	•	•	•	•	•
IS1	(2)	°/A	°/A	°	°	°	°	-	-	-	-	-	-
IS2	(2)	-	-	A	A	A	A	°	°	-	-	-	-
IS3	(2)	-	-	-	-	-	-	A	A	-	-	-	-
IS4	(2)	-	-	-	-	-	-	A	A	°	°	°	-
IS5	(2)	-	-	-	-	-	-	-	-	A	A	-	°
IS6	(2)	-	-	-	-	-	-	-	-	-	-	A	A

(1) The accessory is only available for the low noise version "L"

(2) For heating mode operation the IS accessory, condenser isolating valves, is required

**Attention:** For D - T - E version - please contact us

\* Contact us

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2	WF
3,4,5,6	Size
	2512-2812-3212-3612-4212-4812-5612-6412-6713-7213-8413-9613
7	Model
	° Optimised for low condensing temperature
8	Version
	° Standard
	A High efficiency
9	Equipment
	° Standard
	L low noise
10	Heat recovery
	° Without recovery
	D With Desuperheater
	T With total recovery (3)
11	Evaporator
	° Standard
	E Evaporating unit
12	Power supply
	° 400V/3/50Hz with fuses
	2 230V/3/50Hz with fuses
	5 500V/3/50Hz with fuses (4)
	8 400V/3/50Hz with circuit breakers
	4 230V/3/50Hz cwith circuit breakers
	9 500V/3/50Hz with circuit breakers (4)
12	Safety valve
	° Standard
	S Double safety valve

(3) options T are not compatible with option "E"

(4) 500V/3/50Hz available only size 2512-2812



## Technical Data

WF - °		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
V/ph/Hz		400V/3/50Hz											
12°C / 7°C	Cooling capacity	(1) kW	630	720	872	984	1111	1276	1406	1546	1657	1877	2085
	Total input power	(1) kW	125,06	143,21	174	194,84	219,28	253,97	280,17	309,99	333	375	423
	EER	(1)	5,04	5,03	5,01	5,05	5,06	5,02	5,02	4,99	4,97	5,00	4,93
	ESEER	(1)	5,79	5,84	5,80	5,81	5,83	5,83	5,80	5,80	6,08	6,15	6,14
	Cooling Energy Class Eurovent	(1)	B	B	B	A	A	B	B	B	B	B	B
	Water flow rate system side	(1) l/h	108704	124356	150500	169764	191608	220332	242864	267116	284634	322561	358213
	Pressure drop	(1) kPa	41	58	56	47	43	62	65	75	51	40	49
	Water flow rate geothermal side	(1) l/h	128639	147069	178115	200810	226576	260529	287309	316136	338989	383829	427229
40°C / 45°C	Pressure drop	(1) kPa	16	16	18	16	18	24	17	19	46	48	47
	Heating capacity	(2) kW	678	775	940	1060	1195	1374	1515	1668	1794	2029	2240
	Total input power	(2) kW	158,11	180,8	219,28	246,23	277,48	319,33	353,36	390,48	408,9	461,7	515,1
	COP	(2)	4,29	4,29	4,29	4,31	4,31	4,3	4,29	4,27	4,39	4,39	4,35
	Heating Energy Class Eurovent	(2)	B	B	B	B	B	B	B	B	B	B	B
	Water flow rate system side	(2) l/h	116616	133300	161508	182148	205368	235984	260408	286724	307987	348360	384621
	Pressure drop	(2) kPa	13	13	14	13	14	19	14	15	39	40	39
	Water flow rate geothermal side	(2) l/h	91126	104215	126214	142442	160596	184676	203545	223978	241294	273048	300606
	Pressure drop	(2) kPa	28	39	38	32	29	43	44	51	37	28	34

WF - A		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
V/ph/Hz		400V/3/50Hz											
12°C / 7°C	Cooling capacity	(1) kW	639	725	887	1004	1132	1278	1413	1549	1704	1928	2147
	Total input power	(1) kW	120,53	137,92	168,89	188,58	213,76	239,85	269,78	298,99	324	368	413
	EER	(1)	5,3	5,26	5,25	5,32	5,3	5,33	5,24	5,18	5,26	5,23	5,20
	ESEER	(1)	6,26	6,22	6,26	6,26	6,29	6,27	6,16	6,10	6,50	6,49	6,36
	Cooling Energy Class Eurovent	(1)	A	A	A	A	A	A	A	A	A	A	A
	Water flow rate system side	(1) l/h	110252	125216	153252	173204	195564	220504	243724	267288	292737	331296	368889
	Pressure drop	(1) kPa	44	59	62	44	62	42	41	51	36	57	69
	Water flow rate geothermal side	(1) l/h	129043	146621	179396	202616	228734	257923	285881	313857	345634	391422	436221
40°C / 45°C	Pressure drop	(1) kPa	63	64	72	69	69	74	74	77	69	69	56
	Heating capacity	(2) kW	676	772	944	1066	1199	1358	1506	1654	1815	2055	2274
	Total input power	(2) kW	150,92	171,87	210,18	237,08	260	300,67	338,30	373,85	398	452	504
	COP	(2)	4,5	4,49	4,49	4,5	4,5	4,52	4,45	4,43	4,56	4,55	4,52
	Heating Energy Class Eurovent	(2)	A	A	A	A	A	A	A	B	A	A	A
	Water flow rate system side	(2) l/h	116272	132268	161680	182664	206228	232716	258172	283456	311646	352831	390454
	Pressure drop	(2) kPa	51	51	58	56	55	59	59	62	35	35	28
	Water flow rate geothermal side	(2) l/h	92252	104980	128346	144919	161508	184840	204250	223978	246715	279106	308311
	Pressure drop	(2) kPa	30	40	42	30	42	29	28	35	42	66	67

### Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/5°C

WF - E		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
12°C / 7°C	Cooling capacity	(3) kW	547	624	748	842	954	1077	1208	1328	1469	1679	1801
	Total input power	(3) kW	143	162	195	221	247	279	313	345	381	431	483
	EER	(3)	3,83	3,85	3,84	3,81	3,86	3,86	3,85	3,85	3,89	3,73	3,74
	Water flow rate system side	(3) l/h	94084	107328	128656	144824	164088	185244	207776	228416	252463	288478	309457
	Pressure drop	(3) kPa	31	43	41	34	31	44	47	55	39	30	36

WF - AE		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
12°C / 7°C	Cooling capacity	(3) kW	585	665	800	899	1016	1148	1246	1382	1510	1710	1852
	Total input power	(3) kW	143	162	195	221	248	280	313	346	386	437	490
	EER	(3)	4,09	4,1	4,1	4,07	4,1	3,98	3,99	3,91	3,91	3,78	3,73
	Water flow rate system side	(3) l/h	100620	114380	137600	154628	174752	197456	214312	237704	259397	293839	318199
	Pressure drop	(3) kPa	36	49	50	35	49	34	31	40	26	42	41

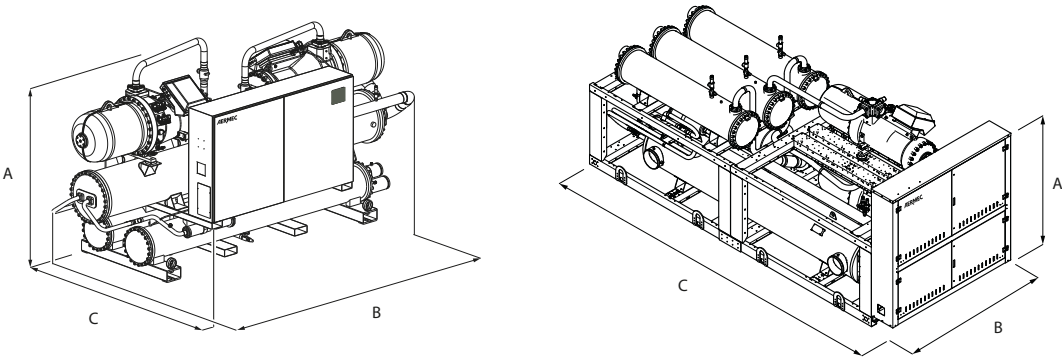
(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613	
Electrical data															
Total input current (cooling)	°	A	212	243	282	317	349	416	457	506	529	620	688	764	
Total input current (heating)		A	271	312	361	406	447	533	585	648	648	751	832	919	
Total input current (cooling)		A	202	232	268	303	332	392	437	483	615	713	792	874	
Total input current (heating)		A	258	297	343	388	425	501	559	619	631	731	809	894	
Total input current (cooling)	°E	A	242	277	321	363	398	465	516	571	613	712	790	873	
	AE	A	242	277	321	363	398	465	516	571	615	713	792	874	
Maximum current (FLA)		A	294	336	396	446	494	572	636	702	741	858	954	1053	
Starting current (LRA)		A	447	528	596	659	712	872	968	1156	859	1047	1178	1376	
Screw Compressor															
Compressors / Circuit		n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3	
Refrigerant		Type	R134a												
Heat exchanger system side															
Exchanger		Type/n°	Shell&tube/1												
hydraulic connections (In/Out)	°	Ø	6"	6"	6"	8"	8"	8"	8"	8"	10"	10"	10"	10"	
	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"	10"	10"	10"	10"	
Heat exchanger source side															
Exchanger		Type/n°	Shell&tube/2									Shell&tube/3			
hydraulic connections (In/Out)	°	Ø	5"	5"	5"	5"	5"	5"	6"	6"	5"	5"	5"	5"	
	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"	5"	5"	6"	6"	
Sound data															
Sound power level		dB(A)	62	62	62	62	63	64	65	66	96	97	99	100	
Sound pressure level		dB(A)	94	94	94	94	95	96	97	98	64	65	67	67	

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



Mod WF - °			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Height	mm	(A)	2100	2100	2050	2120	2140	2140	2210	2210	2225	2225	2225	2225
Width	mm	(B)	3690	3690	4030	4030	4370	4370	4610	4760	5650	5650	5650	5650
Depth	mm	(C)	1470	1470	1470	1520	1550	1550	1600	1600	2200	2200	2200	2200
Weight	Kg		3570	3650	4470	4750	5050	5180	6030	6260	7991	8145	8446	8578
Mod WF - A			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Height	mm	(A)	2180	2180	2190	2340	2340	2340	2380	2380	2225	2225	2225	2225
Width	mm	(B)	4330	4330	4330	4370	4550	4550	4800	4800	5650	5650	5650	5650
Depth	mm	(C)	1470	1470	1537	1695	1695	1695	1700	1700	2200	2200	2200	2200
Weight	Kg		4080	4140	5470	5950	6240	6440	7230	7360	8893	9063	9637	9698

Attention: For D - T - E version - please contact us

# HWF

HFC  
Refrigerant

R134a



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)

Chillers,  
Water/Water indoor installation  
with twin-rotor screw compressor  
Cooling capacity 628÷1524kW  
Heating capacity 671÷1615kW



- **OPTIMISED FOR HIGH CONDENSER TEMPERATURES**  
for example: units operating in heating mode
- **MAXIMUM CONDENSER LEAVING WATER TEMPERATURE: 60 °C**
- **STANDARD ELECTRONIC EXPANSION VALVE WHICH ALLOWS**

## Characteristics

### Version

- **HWF\_°** Standard chillers
- **HWF\_A** High efficiency version
- **Operational limits (1)**
  - **condenser leaving water temperature up to 60 °C**
  - evaporator leaving liquid temperature down to -6 °C
- Two independent refrigerant circuits
- High efficiency, low noise screw compressors with modulating capacity control from 12,5 a 100% for each compressor
- Shell and tube evaporator optimised for refrigerant R134a
- **Standard electronic expansion valve**
- Compact dimensions
- Suitable for use in heat pump mode with leaving water temperature up to 60 °C (with hydraulic system reversing) and with dry-

cooler. **For heating mode operation the IS accessory, condenser isolating valves, is required**

### Options available:

- partial heat recovery
- total heat recovery
- evaporating unit
- low noise unit with compressor acoustical enclosures made from galvanised steel and high density sound absorbent material
- **Modulating capacity control microprocessor system**
  - Redundancy of the unit (one microprocessor per circuit)
  - Leaving water temperature control with modulating capacity control (12.5-100% for each compressor) and dynamic display of the refrigeration capacity
  - Condensing control based on pressure with 0-10 Vdc signal for controlling a modulating

valve / variable speed pump

- Electrical panel with all cables numbered
- Current transformer as standard for each compressor
- "Always Working" function. In the case of critical conditions the unit will not stop but automatically adjusts operation
- Automatic set point compensation using analogue inputs 4-20 mA or 0-10 V or an external air sensor
- Auto-adaptive differential to ensure correct compressor operating timers
- PDC (Pull Down Control) system which prevents capacity loading when the water temperature quickly approaches the set point
- DL (Demand Limit) system permits current limiting of the unit during times of insufficient electrical power (load peaks or generator operation)
- Multilingual display panel

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** Accessory AERWEB allows remote control of a chiller through a common PC and an ethernet connection over a common browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control max. 6 units in RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control max. 18 units in RS485 network;
  - AERWEB300-6G:** Web server to monitor and remote control max. 6 units in RS485 network

with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control max. 18 units in RS485 network with integrated GPRS modem;

- **PRV3:** Remote control of the chiller operating functions.
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
- **AVX:** Spring anti-vibration mounts.

• **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

- **AKW: ACOUSTIC KIT. (only for Versions L)** Allows further unit sound reduction using an optimised enclosure made from a high density ecological material.
- **IS:** Condenser isolating valves. Mandatory accessory for units operating in heat pump mode. Factory fitted only.

**Accessories factory fitted only**

Mod	Vers	2512	2812	3212	3612	4212	4812	5612	6412
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERWEB300		•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•
Compatibility AVX									
standard / standard Low noise									
Mod HWF		2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°
AVX		673	673	673	674	674	674	675	675
Mod HWF		2512°L	2812°L	3212°L	3612°L	4212°L	4812°L	5612°L	6412°L
AVX		673	673	674	674	674	674	675	675
High efficiency/High efficiency low noise									
Mod HWF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
AVX		673	673	674	675	675	675	676	676
Mod HWF		2512AL	2812AL	3212AL	3612AL	4212AL	4812AL	5612AL	6412AL
AVX		674	674	675	675	675	675	676	676
Accessories factory fitted only									
RIF		RIFHWF2512	RIFHWF2812	RIFHWF3212	RIFHWF3612	RIFHWF4212	RIFHWF4812	RIFHWF5602	RIFHWF6412
AKW	(1)	•	•	•	•	•	•	•	•
IS1	(2)	°/A	°/A	°	°	°	°	°	°
IS2	(2)			A	A	A	A	°	°
IS3	(2)							A	A

(1) The accessory is only available for the low noise version "L"

(2) For heating mode operation the IS accessory, condenser isolating valves, is required

**Attention:** For D - T - E version - please contact us

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	<b>HWF</b>
4,5,6,7	<b>Size</b>
	2512-2812-3212-3612-4212-4812-5612-6412
8	<b>Model</b>
	° Optimised for high condensing temperature
9	<b>Version</b>
	° Standard
	A High efficiency
10	<b>Equipment</b>
	° Standard
	L low noise
11	<b>Heat recovery</b>
	° Without recovery
	D With Desuperheater
	T With total recovery <b>(3)</b>
12	<b>Evaporator</b>
	° Standard
	E Evaporating unit
13	<b>Power supply</b>
	° 400V/3/50Hz with fuses
	8 400V/3/50Hz with circuit breakers
	5 500V/3/50Hz with fuses <b>(4)</b>
	9 500V/3/50Hz with circuit breakers <b>(4)</b>

(3) options T are not compatible with option "E"

(4) 500V/3/50Hz available only size 2512-2812

## Technical Data

HWF - °			2512	2812	3212	3612	4212	4812	5612	6412
		V/ph/Hz	400V/3/50Hz							
12°C / 7°C	Cooling capacity	(1) kW	628	713	843	946	1092	1256	1415	1512
	Total input power	(1) kW	130,1	148,1	173,6	195,4	225	259,6	294,3	314,4
	EER	(1)	4,83	4,81	4,85	4,84	4,85	4,84	4,81	4,81
	ESEER	(1)	5,50	5,52	5,56	5,51	5,52	5,55	5,51	5,53
	Cooling Energy Class Eurovent	(1)	B	B	B	B	B	B	B	B
	Water flow rate system side	(1) l/h	108360	123152	145512	163228	188340	216892	244412	261268
	Pressure drop	(1) kPa	41	56	53	44	41	60	65	72
	Water flow rate geothermal side	(1) l/h	129112	146682	173127	194437	224288	258069	291144	311105
40°C / 45°C	Pressure drop	(1) kPa	16	16	17	15	17	23	18	18
	Heating capacity	(2) kW	671	763	899	1010	1164	1339	1513	1616
	Total input power	(2) kW	151,1	172	202,02	227,94	262,36	302,02	343,45	366,08
	COP	(2)	4,5	4,42	4,45	4,43	4,44	4,44	4,41	4,49
	Heating Energy Class Eurovent	(2)	A	B	A	B	B	B	B	B
	Water flow rate system side	(2) l/h	115240	131064	154456	173548	200036	230128	260064	277780
	Pressure drop	(2) kPa	13	12	13	12	14	18	14	14
	Water flow rate geothermal side	(2) l/h	90893	103286	121939	136783	157715	181606	204835	218956
	Pressure drop	(2) kPa	28	39	36	30	28	41	45	49

HWF - A			2512	2812	3212	3612	4212	4812	5612	6412
		V/ph/Hz	400V/3/50Hz							
12°C / 7°C	Cooling capacity	(1) kW	643	730	855	966	1108	1249	1435	1524
	Total input power	(1) kW	128,7	147,1	172,1	193	222,3	249,4	287,4	306,7
	EER	(1)	5,00	4,96	4,96	5,01	4,98	5,01	4,99	4,97
	ESEER	(1)	5,82	5,81	5,80	5,81	5,82	5,82	5,80	5,79
	Cooling Energy Class Eurovent	(1)	B	B	B	B	B	B	B	B
	Water flow rate system side	(1) l/h	110940	126076	147576	166668	191264	215516	247508	262988
	Pressure drop	(1) kPa	44	60	57	41	59	40	42	50
	Water flow rate geothermal side	(1) l/h	131038	148952	174374	196897	225905	254569	292443	310864
40°C / 45°C	Pressure drop	(1) kPa	65	66	68	66	67	72	77	76
	Heating capacity	(2) kW	680	774	902	1022	1172	1321	1519	1615
	Total input power	(2) kW	148,93	169,89	193	223,46	256,93	289,2	333,54	355,32
	COP	(2)	4,68	4,67	4,56	4,58	4,56	4,57	4,66	4,55
	Heating Energy Class Eurovent	(2)	A	A	A	A	A	A	A	A
	Water flow rate system side	(2) l/h	116616	132612	155144	175268	200896	226526	260236	276748
	Pressure drop	(2) kPa	51	52	53	51	52	56	60	59
	Water flow rate geothermal side	(2) l/h	92923	105651	121948	139647	160046	180445	207131	220212
	Pressure drop	(2) kPa	30	41	39	28	40	28	29	34

### Date (14511:2013)

(1) Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

(2) Water system side (in/out) 40°C/45°C; Water geothermal (in/out) 10°C/5°C

HWF - °E			2512	2812	3212	3612	4212	4812	5612	6412
12°C / 7°C	Cooling capacity	(3) kW	540	615	726	816	947	1070	1225	1311
	Total input power	(3) kW	141	161	189	212	246	278	318	340
	EER	(3)	3,83	3,82	3,84	3,85	3,85	3,85	3,85	3,86
	Water flow rate system side	(3) l/h	92883	105773	124872	140352	162884	184040	210700	225492
	Pressure drop	(3) kPa	30	42	39	32	31	44	49	54

HWF - AE			2512	2812	3212	3612	4212	4812	5612	6412
12°C / 7°C	Cooling capacity	(3) kW	577	657	779	873	1012	1143	1263	1362
	Total input power	(3) kW	143	162	191	214	248	280	320	342
	EER	(3)	4,03	4,06	4,08	4,08	4,08	4,08	3,95	3,98
	Water flow rate system side	(3) l/h	99244	113004	133988	150156	174064	196596	217236	234264
	Pressure drop	(3) kPa	35	48	47	33	49	34	32	39

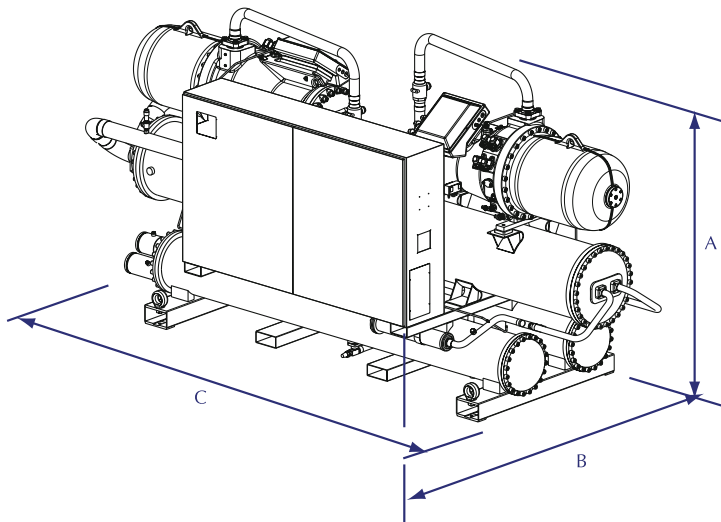
(3) Water system side (in/out) 12°C/7°C; Condensing temperature 45°C

			2512	2812	3212	3612	4212	4812	5612	6412
Dati elettrici										
Total input currente (cooling)	°	A	226	255	286	314	378	426	488	530
Total input currente (heating)		A	267	300	337	371	446	503	575	625
Total input currente (cooling)		A	221	249	278	306	367	408	471	514
Total input currente (heating)		A	261	293	328	361	433	481	556	606
Total input currente (cooling)	°E/AE	A	247	278	315	345	416	465	532	579
Maximum current (FLA)		A	370	418	468	516	612	690	776	846
Starting current (LRA)		A	545	613	670	723	892	995	1193	1340
Screw Compressor										
Compressors / Circuit		n°/n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant		Type	R134a							
Heat exchanger system side										
Exchanger		Type/n°	Shell&tube/1							
hydraulic connections (In/Out)	°	Ø	6"	6"	6"	8"	8"	8"	8"	8"
	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"
Heat exchanger source side										
Exchanger		Type/n°	Shell&tube/2							
hydraulic connections (In/Out)	°	Ø	5"	5"	5"	5"	5"	5"	6"	6"
	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"
Sound data										
Sound power level		dB(A)	94	94	94	94	95	96	97	98
Sound pressure level		dB(A)	62	62	62	62	63	64	65	66

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Sound pressure** Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)



Mod HWF			2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°
Height	mm	(A)	2100	2100	2050	2120	2140	2140	2210	2210
width	mm	(B)	1470	1470	1470	1520	1550	1550	1600	1600
depth	mm	(C)	3690	3690	4030	4030	4370	4370	4610	4760
Weight	Kg		3570	3650	4470	4750	5100	5200	6110	6310

Mod HWF			2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A
Height	mm	(A)	2180	2180	2190	2340	2340	2340	2380	2380
width	mm	(B)	1470	1470	1537	1695	1695	1695	1700	1700
depth	mm	(C)	4330	4330	4330	4370	4550	4550	4800	4800
Weight	Kg		4080	4140	5470	5950	6290	6460	7310	7410

Attention: For D - T - E version - please contact us

# WFG

**Chillers, Water/Water internal installation,  
Can be inverted into a heat pump on water side  
Twin-screw compressor, tube core heat exchangers  
Cooling capacity 483 - 1726 kW  
Heating capacity 524 - 1866 kW**

**HFO**  
Refrigerant  
**R1234ze**  
Low GWP



Aermec adheres to the EUROVENT LCP Certification Programme.  
The products concerned appear on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **FOR LOW CONDENSING TEMPERATURES, such as equipment operating only for cooling with well or tower water, or equipment with a heat pump with water produced at low temperature**
- **MAXIMUM OUTLET WATER TEMPERATURE FROM CONDENSER: 50°C**
- **ELECTRONIC THERMOSTATIC VALVE AS STANDARD**

## Features

Indoor unit producing chilled/heated water (with hydraulic inversion).  
Compact and flexible. Thanks to careful adjustment, they adapt perfectly to every thermal load required. They are equipped with dedicated screw compressors using the **new HFO R1234ze gas** and for work at low condensing temperatures. The plant and source side heat exchangers are tube core type, the base and support structure are in steel finished with corrosion-resistant polyester paint.

**HFO R1234ze** is a blend characterised by **ODP = 0 and GWP (Global Warming Potential) = 7, R134a GWP = 1430**; it has thermo-dynamic properties that match and even improve the efficiency achieved with HFC coolants.

### Versions

- **WFG\_°** Standard chiller
- **WFG\_A** High efficiency chiller

### Functioning range

Production of chilled water up to 4°C on evaporator side but also suitable for use as heat pump (with hydraulic inversion) with a temperature for the water produced at

the condenser of up to 50°C. For more details, refer to the technical documentation / selection software.

- 2/3 independent cooling circuits
- High efficiency screw compressors with quiet operation. Cooling capacity adjustment by means of continuous modulation from 12,5 to 100% for each compressor)
- Tube core heat exchangers
- **electronic thermostatic valve as standard**
- Suitable for use as a heat pump with a temperature for the water produced of up to 50 °C (with hydraulic inversion) with well water or geo-thermal probes.  
**Accessory IS is needed for heating operation (condenser insulation)**
- If so required, the units **can be enclosed "L"** with special sound-proofing elements for the compressors that further reduce noise levels compared to the Standard set-up
- **Modular microprocessor control system**
- Component redundancy (one microprocessor per circuit)
- Output water temperature control with continual

adjustment of capacity and dynamic display of cooling capacity

- Control panels with numbered cables
- Condensation control with 0-10Vdc signal managing a modulating valve / variable speed pump in relation to pressure
- Amperometric transformer as standard for each compressor
- "Always Working" function: if critical conditions arise, the machine does not stop but is able to auto-adjust itself
- Automatic offset of Set Points with analogue input from 4 to 20 mA or 0 - 10 V or ambient air probe
- Self-adapting work differential always ensuring correct compressor operating times
- PDC "Pull Down Control" system: prevents power increases when water temperature quickly approaches the set point
- DL "Demand Limit": used to limit the machine's power consumption if electrical power is insufficient (load peaks or generators coming into operation).
- Multilingual operating parameter display.

## Accessories

- **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.
- **AERWEB300:** The AERWEB device provides the remote control of a chiller via a standard PC using an Ethernet connection and a standard browser; 4 models are available:  
**AERWEB300-6:** Web server to monitor and control up to 6 devices on the RS485 network;  
**AERWEB300-18:** Web server to monitor and control up to 18 devices on the RS485 network;  
**AERWEB300-6G:** Web server to monitor and control up to 6 devices on the RS485 network with integrated

GPRS modem;

- **AERWEB300-18G:** Web server to monitor and control up to 18 devices on the RS485 network with integrated GPRS modem;
- **PRV3:** this allows the chiller command operations to be given from a distance.
- **MULTICHILLER:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the evaporators.
- **AVX:** sprung anti-vibration supports.

### Accessories installed in the factory

- **RIF:** Current phase advancer. When connected to the motor in parallel, the input current is reduced (by about 10%).
- **AKW: ACOUSTIC KIT. (only with Configuration L)** This accessory allows further noise reduction.
- **IS:** Condenser insulation kit, **Compulsory accessory for operating the machine as a heat pump.**



## Compatibility of accessories

Mod	Ver- sion	2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AER485P1		• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x2)	• (x3)	• (x3)	• (x3)	• (x3)
AERWEB300		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•
Compatibility AVX													
standard / standard sound-proofed													
Mod WF		2512°	2812°	3212°	3612°	4212°	4812°	5612°	6412°	6713°	7213°	8413°	9613°
AVX		673	673	673	674	674	674	675	675	689	689	689	689
Mod WF		2512°L	2812°L	3212°L	3612°L	4212°L	4812°L	5612°L	6412°L	6713°L	7213°L	8413°L	9613°L
AVX		673	673	674	674	674	674	675	675	689	689	689	689
high efficiency / high efficiency sound-proofed													
Mod WF		2512A	2812A	3212A	3612A	4212A	4812A	5612A	6412A	6713A	7213A	8413A	9613A
AVX		673	673	674	675	675	675	676	676	690	690	691	691
Mod WF		2512AL	2812AL	3212AL	3612AL	4212AL	4812AL	5612AL	6412AL	6713AL	7213AL	8413AL	9613AL
AVX		674	674	675	675	675	675	676	676	690	690	691	691
Accessories installed in the factory													
REF (RIFWF)		2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
AKW	(1)	•	•	•	•	•	•	•	•	•	•	•	•
IS1	(2)	°/A	°/A	°	°	°	°	-	-	-	-	-	-
IS2	(2)	-	-	A	A	A	A	°	°	-	-	-	-
IS3	(2)	-	-	-	-	-	-	A	A	-	-	-	-
IS4	(2)	-	-	-	-	-	-	-	-	°	°	°	-
IS5	(2)	-	-	-	-	-	-	-	-	A	A	-	°
IS6	(2)	-	-	-	-	-	-	-	-	-	-	A	A

(1) Only available with Configuration L

(2) Accessory recommended when heating is used

Warning: For D/T/E versions, contact the company

\* Contact the company

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field	Description
1,2,3	WFG
4,5,6,7	Size 2512-2812-3212-3612-4212-4812-5612-6412-6713-7213-8413-9613
8	Model
	° Optimised for low condensation levels
9	Version
	° Standard
	A High efficiency
10	Set-up
	° Standard
	L Sound-proofed
11	Heat recuperators
	° Without recovery units
	D With partial heat recovery
	T With total heat recovery (3)
12	Evaporator
	° Standard
	E Condenserless
13	Power supply
	° 400V/3/50Hz with fuses
14	Safety value
	° Standard
2	Dual safety valve with exchange cock

(3) Not compatible with condenserless units "E"

## Technical data

WFG - °			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
		V/ph/Hz	400V/3/50Hz											
12°C/7°C	Cooling power	(1) kW	483	550	663	747	855	977	1074	1176	1223	1398	1539	1706
	Absorbed power	(1) kW	96,2	110,1	134,5	150,5	169,8	196,4	216,8	240,2	249,3	282,1	317,8	352,0
	EER	(1)	5.02	5,00	4.93	4.96	5.04	4.97	4,95	4.90	4,91	4.96	4,84	4.85
	ESEER	(1)	5.85	5.90	5.86	5.86	5.88	5.89	5.86	5.86	6.14	6.21	6.20	6.14
	Eurovent class - cold	(1)	B	B	B	B	B	B	B	B	B	B	B	B
	Plant water flow rate	(1) l/h	83142	94731	114282	128606	147231	168312	184998	202734	210554	240631	265013	293782
	pressure drops	(1) kPa	24,0	33,7	32,4	27,0	25,4	36,3	37,8	43,3	27,8	22,0	26,6	30,3
	Geo-thermal water flow rate	(1) l/h	98579	112336	135815	152778	174503	199719	219710	241143	250384	285782	315851	350048
pressure drops	(1) kPa	10	10	11	9	11	14	10	11	25	26	26	25	
40°C/45°C	Thermal power	(2) kW	524	595	713	802	923	1054	1151	1265	1329	1515	1661	1840
	Absorbed power	(2) kW	122	139	167	188	211	243	266	295	310	351	392	434
	COP	(2)	4,30	4,28	4,27	4,28	4,38	4,34	4,32	4,29	4,29	4,32	4,24	4,24
	Plant water flow rate	(2) l/h	89855	102139	122343	137640	158392	180825	197417	217102	227888	259643	284811	315487
	pressure drops	(2) kPa	8,0	7,9	8,7	7,7	9,0	11,8	8,2	9,1	20,9	21,8	21,1	20,7
	Geo-thermal water flow rate	(2) l/h	70185	79713	95411	107326	124299	141659	154458	169561	177923	203036	221668	245594
	pressure drops	(2) kPa	17,1	23,9	22,6	18,8	18,1	25,7	26,3	30,3	19,9	15,7	18,6	21,2

WFG - A			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
V/ph/Hz			400V/3/50Hz											
12°C/7°C	Cooling power	(1) kW	489	553	671	744	860	974	1081	1183	1257	1424	1589	1726
	Absorbed power	(1) kW	91,1	104,4	125,0	139,3	158,3	178,8	202,3	223,9	234,4	266,6	300,3	333,1
	EER	(1)	5.37	5.30	5.37	5.34	5.43	5.44	5.34	5.28	5.36	5.34	5.29	5.18
	ESEER	(1)	6.32	6.28	6.32	6.32	6.36	6.33	6.22	6.16	6.57	6.55	6.42	6.39
	Eurovent class - cold	(1)	A	A	A	A	A	A	A	A	A	A	A	A
	Plant water flow rate	(1) l/h	84253	95265	115601	128086	148111	167599	186077	203720	216359	245226	273650	297252
	pressure drops	(1) kPa	26	34	35	24	36	23	25	30	20	31	32	37
	Geo-thermal water flow rate	(1) l/h	98654	111733	135299	150172	173083	195962	218134	239123	253677	287527	321437	350099
40°C/45°C	pressure drops	(1) kPa	38	38	42	39	40	41	44	46	37	37	31	36
	Thermal power	(2) kW	529	600	719	797	924	1047	1158	1270	1359	1540	1709	1866
	Absorbed power	(2) kW	113	130	153	171	193	218	245	271	287	326	365	404
	COP	(2)	4,67	4,63	4,71	4,67	4,79	4,79	4,73	4,69	4,73	4,72	4,69	4,62
	Plant water flow rate	(2) l/h	90656	102724	123063	136551	158299	179277	198295	217445	232876	263869	292868	319714
	pressure drops	(2) kPa	32	32	35	32	34	34	36	38	31	31	25	30
	Geo-thermal water flow rate	(2) l/h	72539	82006	98696	109177	127464	144266	159053	174091	186747	211589	234295	254937
	pressure drops	(2) kPa	19	25	26	18	26	17	18	22	15	23	23	28

### Data (14511:2013)

- (1) Plant water (in/out) 12°C/7°C; Geo-thermal water (in/out) 30°C/35°C  
 (2) Plant water (in/out) 40°C/45°C; Evaporation water (in/out) 10°C/5°C

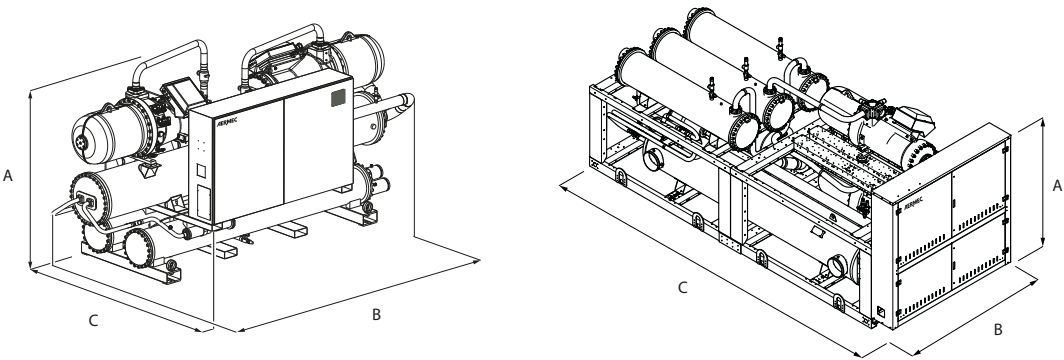
			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Electrical Data														
Total current absorbed when cold	°	A	171	198	223	248	272	331	363	403	418	499	551	615
Total current absorbed when hot		A	206	236	267	298	330	393	429	476	502	590	649	722
Total current absorbed when cold	A	A	164	190	213	238	260	314	348	387	407	487	536	600
Total current absorbed when hot		A	197	226	255	286	314	373	413	457	489	575	633	704
Maximum current (FLA)		A	235	268	313	355	393	454	506	556	608	699	776	854
Starting current (LRA)		A	447	528	596	659	712	872	968	1156	859	1047	1178	1376
Twin-screw compressors														
Compressors / Circuit		no./no.	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
Coolant gas		Type	R1234ze											
System side heat exchanger - Tube core														
Heat exchanger		no.	1											
Water connections (IN/OUT)	°	Ø	6"	6"	6"	8"	8"	8"	8"	8"	10"	10"	10"	10"
Water connections (IN/OUT)	A	Ø	8"	8"	8"	10"	10"	10"	10"	10"	10"	10"	10"	10"
Source side heat exchanger - Tube core														
Heat exchanger		no.	2						3					
Water connections (IN/OUT)	°	Ø	5"	5"	5"	5"	5"	5"	6"	6"	5"	5"	5"	5"
Water connections (IN/OUT)	A	Ø	4"	4"	5"	5"	5"	5"	6"	6"	5"	5"	6"	6"
Sound Data														
Sound pressure level		dB(A)	94	94	94	94	95	96	97	98	64	65	67	67
Sound power level		dB(A)	62	62	62	62	63	64	65	66	96	97	99	100

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

**Sound pressure (Cold operation)** Sound pressure measured in a free field, 10 m from the external surface of the unit (according to the UNI EN ISO 3744).

**N.B.:** For further information, please refer to the selection programme or the technical documentation available at [www.aermec.com](http://www.aermec.com)

Dimensions (mm)



Mod WFG - °			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Height	mm	(A)	2100	2100	2050	2120	2140	2140	2210	2210	2225	2225	2225	2225
Width	mm	(B)	3690	3690	4030	4030	4370	4370	4610	4760	5650	5650	5650	5650
Depth	mm	(C)	1470	1470	1470	1520	1550	1550	1600	1600	2200	2200	2200	2200
Weight	kg		3570	3650	4470	4750	5050	5180	6030	6260	7991	8145	8446	8578
Mod WFG - A			2512	2812	3212	3612	4212	4812	5612	6412	6713	7213	8413	9613
Height	mm	(A)	2180	2180	2190	2340	2340	2340	2380	2380	2225	2225	2225	2225
Width	mm	(B)	4330	4330	4330	4370	4550	4550	4800	4800	5650	5650	5650	5650
Depth	mm	(C)	1470	1470	1537	1695	1695	1695	1700	1700	2200	2200	2200	2200
Weight	kg		4080	4140	5470	5950	6240	6440	7230	7360	8893	9063	9637	9698

**Warning** For the dimensions of versions D - T - L - E, contact the company

# WMX WMG

Water cooled chiller, For indoor installation  
centrifugal compressor flooded evaporator  
Cooling capacity 280 - 324 kW

HFC  
Refrigerant

R134a

HFO  
Refrigerant  
R1234ze  
Low GWP



Aermec participate in the EUROVENT program: LCP the products are present on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **HIGH EFFICIENCY ALSO AT PARTIAL LOADS ESEER 8,4**
- **DESIGN COMPACT**
- **EXTREMELY RELIABLE AND FLEXIBLE**

## Features

Units for internal installation offering chilled water. Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm. They are equipped with centrifugal compressors and heat exchangers, plant side and flooded the source, ensuring a reduction in the refrigerant charge by 50% compared to conventional flooded exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint. The technological choices made, always oriented to the highest quality **and efficiency can reach 5.71 EER values (class A for the working conditions Eurovent)**. Component layout designed to enable several units to be positioned side by side in restricted plant rooms. Ideal when standby is required or when cooling duty is to be increased at a later date

### Versions

**WMX** Chiller with R134a  
**WMG** Chiller with R1234ze

**Both versions can be silenced**

**HFO R1234ze** is a mixture featuring **ODP=0 e GWP (Global Warming Potential) = 7**, **R134a GWP = 1430**, with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

- **New generation two-stage oil free centrifugal compressor** with magnetic levitation friction free bearings

### Compressor features:

- Operates without oil as bearings are magnetic levitation type. Vibration free and very quiet
- Provided with inverter technology that permits capacity modulation down to 20% A version

- Integrated controller that **reduces starting current to 6 A only**

### Unit features

- 5 times lighter than an equivalent screw compressor
- Extremely compact wide to allow access through a standard doorway
- High efficiency with generously sized heat exchanger
- Extraordinary efficiency at part load (**ESEER up to 8.4 among the highest in the market**)
- Electronic expansion valve
- Electronic controller for monitoring and proactive controls
- Microprocessor control system
- LCD user interface: colour touch-screen with simple and intuitive graphical menu
- **Acoustic enclosure (option):** heavy gauge galvanized sheet steel with internal acoustic insulation.

## Accessories

- **AER485P1TW:** RS-485 interface for supervision systems with MODBUS protocol.
- **PTW: Remote control of chiller operating**

### functions.

- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers provid-

ing individual chiller on/off and control capability. **(When this accessory is present, the AER485P1TW is factory fitted as standard).**

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description	7	Efficiency
1,2	WM		A High efficiency
3	Refrigerant		U Very high efficiency
	X R134a		
	G R1234ze	8	Versions
4,5,6	Size		° Standard
	300		L Low noise

## Technical data

WMX/G - A		300X	300G
	V/ph/Hz	400V/3/50Hz	
12°C / 7°C	Cooling capacity	323,6	311,8
	Total input power	60,4	57,6
	EER	5,36	5,41
	ESEER	8,19	8,27
	Cooling Energy Class Eurovent	A	A
	Water flow rate system side	55900	53400
	Pressure drop	34	31
	Water flow rate geothermal side	67700	63600
	Pressure drop	41	36

WMX/G - U		300X	300G
	V/ph/Hz	400V/3/50Hz	
12°C / 7°C	Cooling capacity	279,7	281,8
	Total input power	49,0	49,1
	EER	5,71	5,74
	ESEER	8,44	8,31
	Cooling Energy Class Eurovent	A	A
	Water flow rate system side	48300	48400
	Pressure drop	25	25
	Water flow rate geothermal side	58300	57800
	Pressure drop	30	29

Date (14511:2013)

Water system side (in/out) 12°C/7°C; Water geothermal (in/out) 30°C/35°C

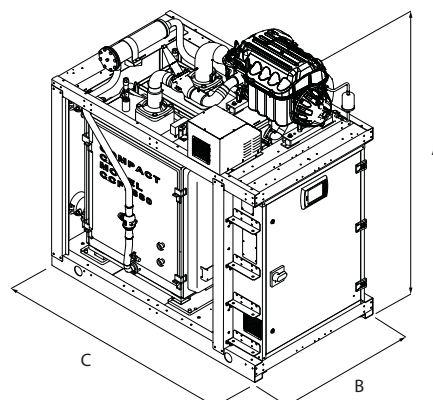
			300X	300G
Electrical data				
Total input current (cooling)	A	A	94	85
	U	A	78	74
Maximum current (FLA)		A	135	150
Starting current (LRA)		A	6	6
Two-stage oil free centrifugal compressor				
Compressors / Circuit		n°/n°	1/1	1/1
Refrigerant		Type	R134a	R1234ze
Heat exchanger system side				
Heat exchanger		Type/n°	Floded Spray system /1	
Heat exchanger source side				
Heat exchanger		Type/n°	Shell&tube compact /1	
Sound data				
Sound power level		A	dB(A)	90
		U	dB(A)	85
		AL	dB(A)	84
		UL	dB(A)	78

**Sound power** Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

WM			300X	300G
Height	A/U	A	mm	1905
	AL/UL	A	mm	1942
Width		B	mm	1041
Length		C	mm	1770
Weight	A/U		kg	2025
	AL/UL		kg	2390



Code: SWMX\_GUY01 / 1612

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)

## TW110 Water cooled modular chiller with centrifugal compressor

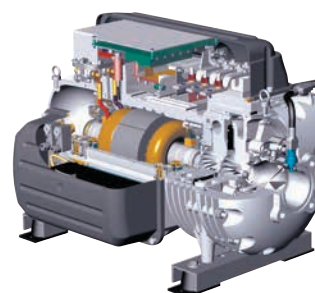
HFC  
Refrigerant  
**R134a**



Aermec participates in the EUROVENT Program: LCP  
The products of interest can be found on the website  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



**HERCULES**



### Characteristics

- Cooling only version
  - New generation two-stage oil free centrifugal compressor with magnetic levitation friction free bearings
  - Plate heat exchangers optimised for use with refrigerant R134a
  - Extremely compact: only 805 mm wide to allow access through a standard doorway
  - Component layout designed to enable several units to be positioned side by side in restricted plant rooms. Ideal when standby is required or when cooling duty is to be increased at a later date
  - High efficiency with generously sized heat exchanger
  - Extraordinary efficiency at part load (**up to 30% higher IPLV when compared with standard chillers**)
  - Electronic expansion valve
- Compressor features:**
- Operates without oil as bearings are magnetic levitation type. Vibration free and very quiet
  - Provided with inverter technology that permits capacity modulation down to 25%
  - Integrated controller that reduces starting current to 6 A only
  - 5 times lighter than an equivalent screw compressor
  - Electronic controller for monitoring and proactive controls
  - Microprocessor control system
  - LCD user interface: colour touch-screen with simple and intuitive graphical menu
  - **Acoustic enclosure:** heavy gauge galvanized sheet steel with internal acoustic insulation.

### Accessories

- **AER485P1TW:** RS-485 interface for supervision systems with MODBUS protocol.
- **PTW: Remote control of chiller operating functions.**
- **MULTICHILLER:** Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability. (When this accessory is present, the AER485P1TW is factory fitted as standard).

## Technical data

Mod.	TW 110	
Cooling capacity	kW	284
Total input power	kW	58,47
Evaporator water flow rate (7 °C)	l/h	49020
Evaporator pressure drop	kPa	30
Condenser water flow rate (30 °C)	l/h	58236
Condenser pressure drop	kPa	43
<b>ENERGY INDEX</b>		
EER	W/W	4,86
ESEER	W/W	7,05
<b>ELECTRICAL DATA</b>		
Power supply	-	400V 3~ 50Hz
Input current	A	88
Maximum current (FLA)	A	134
Starting current (LRA)	A	6
<b>SOUND DATA</b>		
Sound pressure	dB(A)	77
Sound power	dB(A)	49
<b>HYDRAULIC CONNECTION</b>		
Evaporator hydraulic connection (Victaulic)	Ø	3"
Condenser hydraulic connection (Victaulic)	Ø	3"

### Cooling

- leaving water temperature 7°C;
- condenser entering water temperature 30 °C;
- $\Delta t = 5$  °C;

### Sound power:

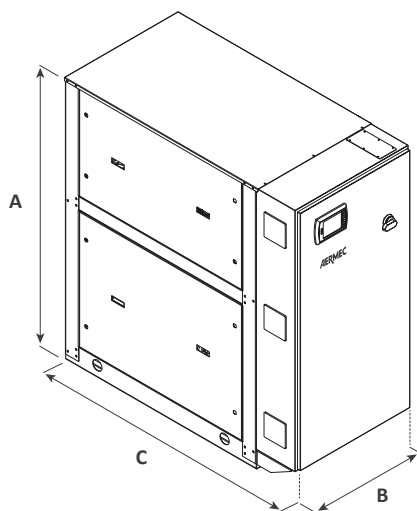
Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

### Sound pressure:

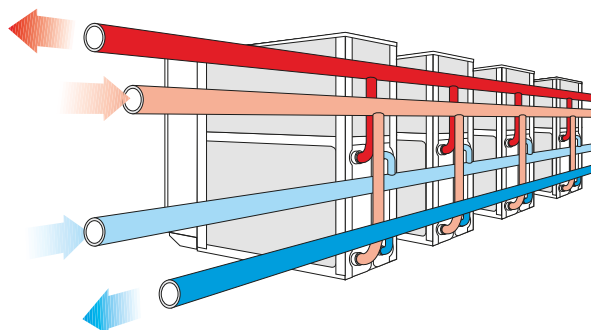
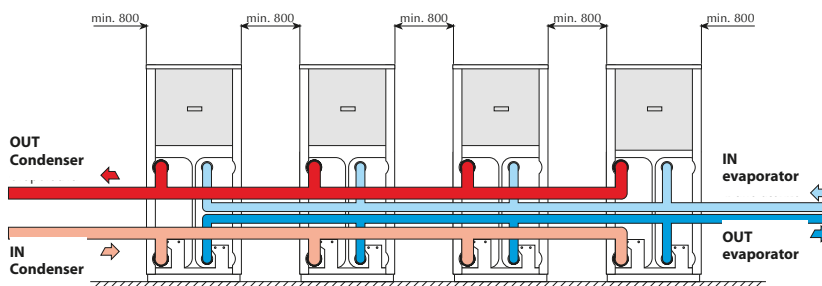
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744)

Data declared in accordance with UNI EN 14511:2013

## Dimensions (mm)



Model	TW 110	
Height	[mm] (A)	1727
Width	[mm] (B)	805
Depth	[mm] (C)	1653
Weight	kg	960





# WTX

**Water/Water Chiller - internal installation**  
**Centrifugal oil-free compressors, Flooded heat exchangers**  
**Cooling capacity 222 - 1950kW**

**HFC**  
 Refrigerant  
**R134a**



Aermec participates in the EUROVENT program: LCP The products concerned up to 1500kW appear on the site [www.eurovent-certification.com](http://www.eurovent-certification.com)



- **HIGH EFFICIENCY UP TO 9**
- **EXTENDED OPERATING RANGE**
- **POSSIBILITY OF SELECTING BETWEEN HEAT EXCHANGERS WITH 1 OR 2 PASSES ON WATER SIDE**

## Features

Indoor unit producing chilled water equipped with magnetic levitation centrifugal compressors and shell&tube heat exchangers.

The base and the structure are made of steel treated with polyester anti-corrosion paints.

The technological choices made always focus on maximum quality and efficiency, thereby achieving EER > 6 values (class A for Eurovent operating conditions).

### Versions

• **WTX\_A** High Efficiency Chiller

• **WTX\_U** Ultra-High Efficiency Chiller

**Both versions can be sound-proofed**

• **Operating range:** Water produced at 15°C to 50°C on Condenser side and 5°C to 25°C on Evaporator side.

• **Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation**

- Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise  
 - The compressor is equipped with an inverter for continuous load modulation by varying rpm (from 30% to 100%)  
 - Built-in device to reduce starting current (**only 6 Amps!**)

### Flooded Evaporator with subcooler

#### - Subcooler effect:

Superheats compressor gas intake;  
 Subcools thermostatic valve fluid intake;  
 Increases chiller yield and ensures gas suction from compressor.

### Condenser

- With refrigerant on shell side and water on pipe side

- **From size 1300 to 2350, heat exchangers have 2 passes on the water side**

- **From size 3300 to 4350, configurations are available with heat exchangers with 1 or 2 passes on the water side**

- Extraordinary efficiency under partial loads (**ESEER up to 9 among the highest on the market**)
- Electronic thermostatic valves
- On-board control electronics for monitoring and proactive operating management
- Microprocessor unit control
- Touchscreen colour LCD user interface with very intuitive graphic menus
- **Acoustic chiller enclosure (option):** in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

## Accessories

• **AER485P1:** RS-485 interface for supervision systems with MODBUS protocol.

• **MULTICHILLER\_EVO:** Control system to command, activate and deactivate the individual chillers in a system in which several units are installed in parallel,

always ensuring constant delivery to the evaporators.  
**This accessory requires the inclusion of AER485P1 for each unit connected.**

• **AVX:** Spring-type anti-vibration supports.

## Compatibility of accessories

WTX	vers.	1300	1350	2300	2350	3300	3325	3350	4325	4350
AER485P1		•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•

(1) Accessory to be defined when placing the order

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field	Description
1,2,3	<b>WTX</b>
4,5,6,7	<b>Size</b> 1300 - 1350 - 2300 - 2350 - 3300 - 3325 - 3350 - 4325 - 4350
8	<b>Efficiency</b> <b>A</b> High efficiency <b>U</b> Extra high efficiency
9	<b>Heat exchangers</b> <b>2</b> Two passes on water side <b>1</b> On pass on water side ( <b>available from size 3300 to 4350</b> )
10	<b>Version</b> ° Standard <b>L</b> Sound-proofed
11	<b>Power supply</b> ° 400V 3 ~ 50Hz with circuit breakers on compressors and auxiliary circuit

### HEAT EXCHANGERS

Over-sized tube core exchangers ensure excellent performances at full and partial loads.

**Flooded evaporator** with level adjustment through an electronic valve controlled by a level sensor.

**Backflow condenser** with refrigerant on shell side and water on tube side.

**From size 1300 to 2350, heat exchangers have 2 passes on the water side.**

Starting from size **WTX3300**, **heat exchangers** are available as **versions with one or two passes on the water side** to meet any plant installation requirement.

**The dimensions of the two configurations ensure similar performances** (same approach to heat exchangers). **The difference is that the version with two passes on the water side due offers the convenience of water connections all on the same side**, against a generally higher but nonetheless limited drop in pressure compared to the version with one pass on the water side.



## Technical data

WTX - A			1300	1350	2300	2350	3300		3325		3350		4325*		4350*	
Passes on water side		no.	2	2	2	2	1	2	1	2	1	2	1	2	1	2
			400V 3 ~ 50Hz													
12°C/7°C	Cooling power	(1) kW	350,7	487,7	701,2	897,7	1053	1051	1212	1211	1464	1462	1714	1710	1952	1950
	Absorbed power	(1) kW	70,8	94,3	141,7	164,0	211,4	212,6	219,8	220,6	281,5	283,8	315,3	318,8	375,0	380,0
	EER	(1)	4,95	5,17	4,95	5,47	4,98	4,94	5,51	5,49	5,20	5,15	5,44	5,36	5,20	5,13
	ESEER	(1)	8,11	8,10	8,02	8,40	8,27	8,05	8,00	7,90	8,39	8,10	8,26	7,90	8,45	8,00
	Eurovent class - cold	(1)	B	A	B	A	B	B	A	A	A	A	A	A	A	A
	Evaporator water flow rate	(1) l/h	60489	84099	120978	154802	181467	181467	208982	208982	252296	252296	295297	295297	336395	336395
	pressure drops	(1) kPa	32	30	40	33	32	54	39	52	31	54	24	60	31	49
	Condenser water flow rate	l/h	71956	99378	143913	181443	215869	215869	244504	244504	298133	298133	346514	346514	397510	397510
		pressure drops	kPa	31	33	35	28	31	28	38	35	31	33	42	41	53
WTX - U			1300	1350	2300	2350	3300		3325		3350		4325		4350	
Passes on water side		no.	2	2	2	2	1	2	1	2	1	2	1	2	1	2
			400V 3 ~ 50Hz													
12°C/7°C	Cooling power	(1) kW	222,7	333,8	445,5	559,3	668,5	668,2	868,7	838,5	1002	1005	1179	1190	1336	1340
	Absorbed power	(1) kW	37,6	55,9	75,1	94,3	112,2	112,5	144,9	140,7	166,8	167,2	195,3	198,4	222,3	223,4
	EER	(1)	5,92	5,97	5,93	5,93	5,96	5,94	6,00	5,96	6,00	6,01	6,04	6,00	6,01	6,00
	ESEER	(1)	8,63	8,34	8,68	8,77	8,94	8,83	8,80	8,75	8,99	8,87	9,02	8,77	8,94	8,72
	Eurovent class - cold	(1)	A	A	A	A	A	A	A	A	A	A	A	A	A	A
	Evaporator water flow rate	(1) l/h	38377	57508	76754	96321	115132	115132	149642	144482	172524	173134	202962	205026	230032	230845
	pressure drops	(1) kPa	12	13	16	12	12	21	18	23	14	24	10	26	14	22
	Condenser water flow rate	l/h	44528	66656	89056	111838	133584	133584	173377	167508	199968	200500	235091	237447	266624	267334
		pressure drops	kPa	12	14	13	10	12	10	17	15	13	14	17	13	23

### Data (14511:2013)

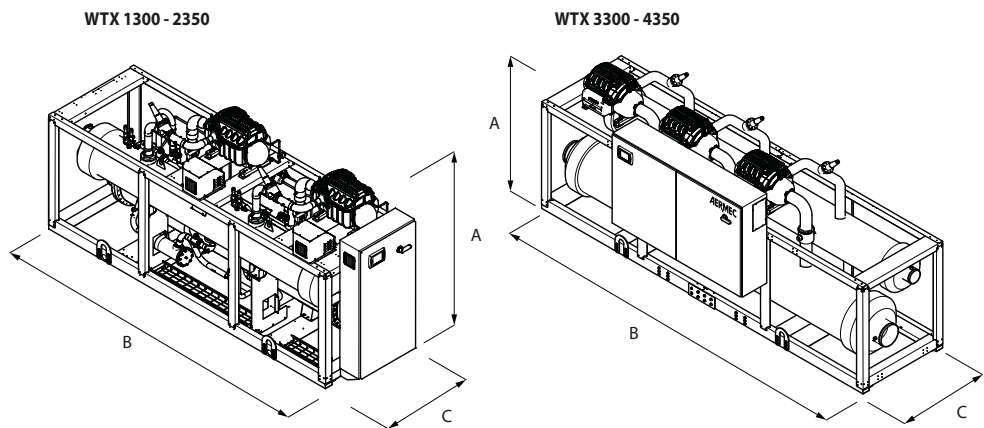
(1) Evaporator water (in/out) 12°C/7°C; Condenser water (in/out) 30°C/35°C

\* Units not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

			1300	1350	2300	2350	3300	3325	3350	4325	4350
<b>Electrical Data</b>											
Total current absorbed when cold	A	A	106	145	212	255	317	356	435	503	580
	U	A	60	91	120	158	180	237	273	316	364
Maximum current (FLA)		A	135	210	270	420	405	630	630	840	840
Starting current (LRA)		A	6	6	141	216	276	426	426	636	636
<b>Oil Free Centrifugal Inverter Compressors</b>											
Compressors / Circuit		no./no.	1/1	1/1	2/1	2/1	3/1	3/1	3/1	4/1	4/1
Coolant gas		Type	R134a								
<b>Evaporator - Shell&amp;tube</b>											
Heat exchanger		no.	1								
<b>Condenser - Shell&amp;tube</b>											
Heat exchanger		no.	1								
<b>Sound Data</b>											
sound power level	A	dB(A)	90,0	91,0	93,0	93,5	96,0	95,5	97,0	98,5	100,0
sound power level	U	dB(A)	87,0	88,0	90,0	88,0	90,0	91,0	94,0	94,0	97,0

**Sound power (Cold operation)** Aermec determines the sound power value based on measures in accordance with standard UNI EN ISO 9614-2, in compliance with Eurovent certification.

**N.B.:** For further information, please refer to the selection programme or the technical documentation available at [www.aermec.com](http://www.aermec.com)



WTX A/U		1300	1350	2300	2350	3300		3325		3350		4325		4350	
Passes on water side	no.	2	2	2	2	1	2	1	2	1	2	1	2	1	2
A	mm	1850	1950	1970	2010	1970	2240	2010	2280	2010	2280	2010	2280	2280	2280
B	mm	3040	3040	3340	3440	4966	3990	4966	3990	4966	3990	4966	4966	4966	4966
C	mm	1000	1000	1240	1240	1640	1732	1640	1732	1640	1836	1640	1836	1732	1836

# MULTI-PURPOSE

Thanks to the special architecture of the refrigerant circuit and advanced control logic, the multi-purpose heat pump is able to simultaneously satisfy different installation requirements and to independently modulate the power delivered on each of them.

The ability to simultaneously meet the demand of the hot and cold circuit, whatever the proportion of the load on the two circuits may be, derives from the capacity of its control to switch the operation between the various possible modes.

MULTI-PURPOSE		Air flow-rate (m³/h)	Cooling cap. (kW)	Heating cap. (kW)	Page
NRP 0200-0750	Multi-Purpose	-	43,0-184,0	46,0-206,0	460
NRP 0800-1800	Multi-Purpose	-	199,0-475,0	242,0-547,0	464
NXP 0500-1650	Multi-Purpose	-	109,0-501,0	123,0-560,0	468

## NRP 0200/0750

**Multipurpose**  
**Air/Water for outdoor installation**  
**Axial fans, scroll compressor**  
**Cooling capacity 43 - 184kW**  
**Heating capacity 46 - 206kW**

HFC  
Refrigerant  
**R410A**



- **DESIGNED FOR 2 AND 4-PIPE SYSTEMS**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

### Characteristics

NRP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems**. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

#### Version

**NRP\_A** Multipurpose high efficiency version

**NRP\_E** Multipurpose high efficiency low noise version

#### Operational limits (1)

- max. external air temperature 46°C  
Cooling mode
- Maximum leaving water temperature 55°C  
Heating mode
- 2refrigerant circuits
- High efficiency scroll compressors with low power input
- Heat exchangers optimised to benefit from the

excellent heat transfer characteristics of R410A.

- flow switch as standard supply
- Water filter
- Options for integrated hydronic modules with pumps, buffer tank:
  - Buffer tank and pumps or only pumps
  - expansion tank
  - Safety valve
  - Pressure gauge
- Axial fans for extremely quiet operation
- Units fitted as standard with fan speed controller (DCPX), which permits operation in the winter with external temperatures down to -10 °C, and in heating mode with external temperatures up to 42 °C
- Microprocessor controls.
  - Control from the leaving water temperature, with the possibility of selecting control of the entering water temperature.

- Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
- Evaporating control in summer for heat pump operation
- Intelligent defrost control on drop of pressure
- Automatic rotation of compressors and pumps based on operating hours
- Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

### Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;
  - AERWEB300-6G:** Web server to monitor and remote control maximum 6 units on RS485

network with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.

- **MULTICHILLER\_NRP:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.

- **GP:** Protection grille protects the external coil from accidental damage.
- **VT** Anti-vibration mounts to be installed under the base of the unit.

#### Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current by about 26%.  
**Available only with 400V power supply.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.



## Compatibility of accessories

Mod. NRP	Vers.	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	Alls	*	*	*	*	*	*	*	*	*	*	*	*
AERWEB300	Alls	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_NRP	Alls	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	Alls	*	*	*	*	*	*	*	*	*	*	*	*
GP	(1) A	-	-	-	-	-	-	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)	10(x3)
	(1) E	3	3	3	4	4	4	2(x2)	2(x2)	2(x2)	2(x2)	2(x3)	10(x3)
VT (00-P1-P2-P3-P4)	Alls	17	17	17	17	17	17	13	13	13	13	22	23
VT (01-02-03-04-05-06-07-08-09-10)	Alls	13	13	13	13	13	13	10	10	10	10	22	23
VT (R1-R2-R3-R4)	Alls	17	17	17	17	17	17	13	13	13	13	22	23
<b>Accessories factory fitted only</b>													
DRE	(2) Alls	281	281	281	301	331	351	501	551	601	651	701	751
RIF	Alls	54	54	50	50	50	51	52	52	53	53	53	53

(1) (x2)(x3) the number in brackets indicates the quantity to order

(2) Only available for 400V/3N/50Hz power supply

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	NRP
4,5,6,7	Size
	0200-0240-0280-0300-0330-0350-0500-0550-0600-0650-0700-0750 (4)
8	Version
	A High efficiency
	E High efficiency in low noise operation
9	System type
	2 2-pipe system (cooling + DHW heating)
	4 4-pipe system (cooling + heating)
10	Coil
	° In aluminium
	R In copper
	S In tinned copper
	V Coated aluminium (epoxy paint)
11	Fans (5)
	° Standard
	M Increased
	J High static pressure Inverter
12	Power supply (6)
	° 400V/3N/50Hz with circuit breakers
	1 220V/3/50Hz with circuit breakers
13-14	System integrated hydronic module (7)
	00 without pumps or buffer tank
	01 n°1 low head pump and buffer tank
	02 n°2 low head pump and buffer tank
	03 n°1 high head pump and buffer tank
	04 n°2 high head pump and buffer tank
	05 n°1 low head pump and buffer tank (with holes for immersion heaters)
	06 n°2 low head pump and buffer tank (with holes for immersion heaters)
	07 n°1 low high pump and buffer tank (with holes for immersion heaters)
	08 n°2 low high pump and buffer tank (with holes for immersion heaters)
	P1 n°1 low head pump
	P2 n°2 low head pump
	P3 n°1 high head pump
	P4 n°2 high head pump
15-16	Heat recovery integrated hydronic module
	00 without pumps
	R1 n°1 low head pump
	R2 n°2 low head pump
	R3 n°1 high head pump
	R4 n°2 high head pump

CONFIGURATION POSSIBILITY BETWEEN HYDRONIC MODULES FOR NRP 0200 ... 0750						
Heat recovery integrated hydronic module						
System integrated hydronic module		00	R1	R2	R3	R4
	00	ok	ok	ok	ok	ok
	01	ok	nd	nd	nd	nd
	02	ok	nd	nd	nd	nd
	03	ok	nd	nd	nd	nd
	04	ok	nd	nd	nd	nd
	05	ok	nd	nd	nd	nd
	06	ok	nd	nd	nd	nd
	07	ok	nd	nd	nd	nd
	08	ok	nd	nd	nd	nd
	P1	ok	ok	ok	ok	ok
	P2	ok	ok	ok	ok	ok
	P3	ok	ok	ok	ok	ok
	P4	ok	ok	ok	ok	ok

nd = not available

(4) The size 0200-0240-0280-0300-0330-0350 only available in low noise version "E"

(5) **Standard on/off fans** for sizes from 0500 to 0750

**Increased on/off fans, option** available for sizes from 0200 to 0350

**Standard Inverter fans** for sizes from 0200 to 0350, without useful static pressure

**Inverter fan, option** for sizes from 0500 to 0750 with useful static pressure

(6) 220V/3/50Hz is not available for size 0750

(7) Buffer tanks with holes for additional heaters are supplied from factory with plastics caps of protection, before system's loading, where the installation of one or all the heaters is not provided, it is mandatory to replace plastic caps with special caps, which are commonly available in the market.

## Technical Data

Mod. NRP Multipurpose for 2-pipe system			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750	
Cooling system side															
Cooling capacity	A	kW	-	-	-	-	-	-	100	103	123	140	159	184	
	E	kW	43	50	56	64	68	80	95	99	116	130	152	178	
Total input power	A	kW	-	-	-	-	-	-	32,47	36,00	44,15	50,51	55,16	64,58	
	E	kW	14,01	16,59	18,92	20,89	23,25	27,06	35,23	38,95	48,37	55,51	61,88	70,60	
EER	A	W/W	-	-	-	-	-	-	3,07	2,87	2,80	2,78	2,88	2,85	
	E	W/W	3,05	3,00	2,95	3,05	2,91	2,94	2,68	2,53	2,39	2,35	2,46	2,52	
Water flow rate	A	l/h	-	-	-	-	-	-	17200	17900	21300	24252	27520	31800	
	E	l/h	7400	8600	9630	11000	11700	13770	16340	17030	19874	22530	26300	30867	
Total pressure drop	A	kPa	-	-	-	-	-	-	37	39	37	48	56	67	
	E	kPa	26	37	22	29	22	31	34	35	32	41	51	63	
Heating system side															
Heating capacity	A/E	kW	46	53	60	75	80	84	107	113	138	153	174	206	
Total input power	A/E	kW	13,34	15,63	17,76	22,41	23,96	25,70	32,64	35,08	41,26	45,72	53,80	62,81	
COP	A/E	W/W	3,47	3,41	3,39	3,37	3,35	3,28	3,26	3,21	3,34	3,34	3,23	3,29	
Efficiency Energy Class	(1)	alls	A+	A+	A+	A+	A+	A+	-	-	-	-	-	-	
Water flow rate	A/E	l/h	7912	9116	10300	12900	13760	14448	18232	19270	23564	26144	29756	35260	
Total pressure drop	A/E	kPa	30	42	25	40	31	34	42	45	45	56	65	83	
Heating DHW side															
Heating capacity	A/E	kW	46	53	60	75	80	84	106	112	138	153	174	206	
Total input power	A/E	kW	13,24	15,48	17,73	22,36	24,01	25,57	32,54	34,98	41,33	45,66	53,46	62,35	
COP	A/E	W/W	3,49	3,44	3,40	3,37	3,35	3,30	3,27	3,22	3,33	3,35	3,25	3,30	
Water flow rate	A/E	l/h	7912	9116	10300	12900	13760	14448	18232	19264	23564	26146	29756	35260	
Total pressure drop	A/E	kPa	13	17	21	33	38	19	31	34	51	49	35	50	
Cooling with heat recovery															
Cooling capacity	A/E	kW	46	52	58	69	74	87	103	111	134	148	169	203	
Recovered power	A/E	kW	58	67	75	88	95	111	132	143	175	194	219	262	
Total input power	A/E	kW	13,45	15,82	18,10	20,85	22,90	25,90	31,18	33,37	43,87	48,58	53,03	64,06	
Water flow rate (system side)	A/E	l/h	7852	9040	10040	11868	12745	15000	17800	19195	23070	25598	29163	34925	
Total pressure drop (system side)	A/E	kPa	29	41	24	33	26	36	40	44	42	52	62	81	
Water flow rate (DHW side)	A/E	l/h	9976	11520	12900	15136	16340	19092	22704	24424	29928	33196	37496	44892	
Total pressure drop (DHW side)	A/E	kPa	20	27	33	46	54	33	47	55	82	78	56	81	
TER	(2)	A/E	W/W	7,72	7,58	7,39	7,55	7,41	7,67	7,57	7,62	7,05	7,06	7,33	7,27
Mod. NRP Multipurpose for 4-pipe system			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750	
Cooling system side															
Cooling capacity	A	kW	-	-	-	-	-	-	100	103	123	140	159	184	
	E	kW	43	50	56	64	68	80	95	99	116	130	152	178	
Total input power	A	kW	-	-	-	-	-	-	32,47	36,00	44,15	50,51	55,16	64,58	
	E	kW	14,01	16,59	18,92	20,89	23,25	27,06	35,23	38,95	48,37	55,51	61,88	70,60	
EER	A	W/W	-	-	-	-	-	-	3,07	2,87	2,80	2,78	2,88	2,85	
	E	W/W	3,05	3,00	2,95	3,05	2,91	2,94	2,68	2,53	2,39	2,35	2,46	2,52	
Water flow rate	A	l/h	-	-	-	-	-	-	17200	17900	21300	24252	27520	31800	
	E	l/h	7400	8600	9630	11000	11700	13770	16340	17030	19874	22530	26300	30867	
Total pressure drop	A	kPa	-	-	-	-	-	-	37	39	37	48	56	67	
	E	kPa	26	37	22	29	22	31	34	35	32	41	51	63	
Heating system side															
Heating capacity	A/E	kW	46	53	60	75	80	84	107	113	138	153	174	206	
Total input power	A/E	kW	13,24	15,48	17,73	22,36	24,01	25,57	32,54	34,98	41,33	45,66	53,46	62,35	
COP	A/E	W/W	3,49	3,44	3,39	3,37	3,35	3,28	3,26	3,21	3,34	3,34	3,23	3,29	
Efficiency Energy Class	(1)	alls	A+	A+	A+	A+	A+	A+	-	-	-	-	-	-	
Water flow rate	A/E	l/h	7912	9116	10300	12900	13760	14448	18232	19264	23564	26146	29756	35260	
Total pressure drop	A/E	kPa	13	17	21	33	38	19	31	34	51	49	35	50	
Cooling wit heat recovery															
Cooling capacity	A/E	kW	46	52	58	69	74	87	103	111	134	148	169	203	
Recovered power	A/E	kW	58	67	75	88	95	111	132	143	175	194	219	262	
Total input power	A/E	kW	13,45	15,82	18,10	20,85	22,90	25,90	31,18	33,37	43,87	48,58	53,03	64,06	
Water flow rate (cold side)	A/E	l/h	7852	9040	10040	11868	12745	15000	17800	19195	23070	25598	29163	34925	
Total pressure drop (cold side)	A/E	kPa	29	41	24	33	26	36	40	44	42	52	62	81	
Water flow rate (hot side)	A/E	l/h	9976	11520	12900	15136	16340	19092	22704	24424	29928	33196	37496	44892	
Total pressure drop (hot side)	A/E	kPa	20	27	33	46	54	33	47	55	82	78	56	81	
TER	(2)	A/E	W/W	7,72	7,58	7,39	7,55	7,41	7,67	7,57	7,62	7,05	7,06	7,33	7,27

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

### Heating (14511:2013)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

### Cooling mode with heat recovery:

heat recovery water temperature (in/out) 40°C/45°C; Evaporator water temperature (out) 7°C

(1) In accordance with the Regulation n° 811/2013 Pdesignh ≤ 70kW

(2) Total Efficiency Ratio

## Technical Data

GENERAL DATA				0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
<b>Electrical data</b>															
Total input current	(1)	A	A	-	-	-	-	-	-	55	59	72	82	88	113
	(1)	E	A	28	33	38	41	45	52	60	64	79	91	99	120
Maximum current (FLA)	(1)	A/E	A	36	41	46	53	58	63	76	81	100	112	122	144
Starting current (LRA)	(1)	A/E	A	119	150	155	184	190	200	214	220	232	243	261	320
<b>Compressors</b>															
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	2	2	2	2	2	2	2	3	3	4	4	4	4
Circuits		n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Capacity control		%	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/50/100	0/25/50/100	0/25/50/100	0/25/50/100
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
<b>Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system</b>															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
<b>Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system</b>															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
<b>Fans standard</b>															
Fans		type	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial
		n°	6	6	6	8	8	8	2	2	2	2	2	3	3
Air flow rate	A	m³/h	-	-	-	-	-	-	37000	37000	36500	36500	58000	48000	48000
cooling mode	E	m³/h	20000	20000	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600	34600
Air flow rate heating mode		m³/h	20000	20000	20000	26000	26000	26000	37000	37000	36500	36500	58000	48000	48000
<b>System integrated hydronic module</b>															
Buffer tank		l.	300	300	300	300	300	300	500	500	500	500	500	500	700
Useful head		kPa	For more information, refer to the selection program or the technical documentation available												
<b>Sound data (cooling mode)</b>															
Sound pressure	(2)	A	dB(A)	-	-	-	-	-	-	50	50	50	51	53	53
	(2)	E	dB(A)	42	42	42	43	43	44	42	42	42	43	45	45
Sound power	(2)	A	dB(A)	-	-	-	-	-	-	82	82	82	83	85	85
	(2)	E	dB(A)	74	74	74	75	75	76	74	74	74	75	77	77
Power supply		V/ph/Hz	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N	400V/3N

### Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

### Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

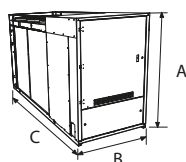
(1) The electrical data of the versions without hydronic module integrated

(2) Calculated in cooling mode

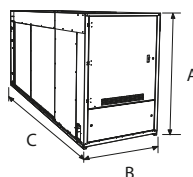
**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

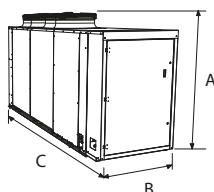
NRP 0200 ÷ 0280



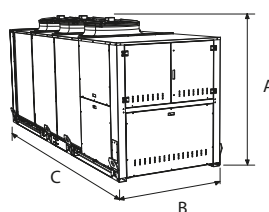
NRP 0300 ÷ 0350



NRP 0500 ÷ 0650



NRP 0700 ÷ 0750



Mod. NRP	Vers	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Height (mm)	A	All	1606	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
Width (mm)	B	All	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
Depth (mm)	C	All	2700	2700	2700	3200	3200	3200	3342	3342	3342	4342	4350
Weight when empty (kg)			788	790	792	862	872	894	1233	1237	1359	1378	1591

# NRP

0800/1800

**Multipurpose**  
**Air/Water for outdoor installation**  
**Axial fans, scroll compressor**  
**Cooling capacity 199÷475kW**  
**Heating capacity 242÷547kW**

HFC  
 Refrigerant  
**R410A**



- **DESIGNED FOR 2 AND 4-PIPE SYSTEMS**
- **HIGH EFFICIENCY VERSION**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

## Characteristics

NRP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems**. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

### Version

- NRP\_A** Multipurpose high efficiency version
- NRP\_E** Multipurpose high efficiency low noise version

### Operational limits (1)

- max. external air temperature 46°C  
Cooling mode
- Maximum leaving water temperature 55°C  
Heating mode
- 2 refrigerant circuits
- Heat exchangers optimised to benefit from the

excellent heat transfer characteristics of R410A.

- flow switch as standard supply
- Water filter
- Options for integrated hydronic modules with pumps:
  - Pumps or only pumps
  - expansion tank
  - Safety valve
  - Pressure gauge
- Axial fans for extremely quiet operation
- Units fitted as standard with fan speed controller (DCPX), which permits operation in the winter with external temperatures down to -10 °C, and in heating mode with external temperatures up to 42 °C
- Microprocessor controls.
  - Control from the leaving water temperature,

with the possibility of selecting control of the entering water temperature.

- Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature
- Evaporating control in summer for heat pump operation
- Intelligent defrost control on drop of pressure
- Automatic rotation of compressors and pumps based on operating hours
- Load limiting safety control
- Metallic protective cabinet with anti-corrosion polyester paint

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:
  - AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;
  - AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;
  - AERWEB300-6G:** Web server to monitor and remote control maximum 6 units on RS485 network with integrated GPRS modem;
  - AERWEB300-18G:** Web server to monitor and remote control maximum 18 units on RS485

network with integrated GPRS modem.

- **MULTICHILLER\_NRP:** Control system to switch the individual chillers on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with TWISTED PAIR SCREENED cable and TCONN6J000.
- **GP:** Protection grille protects the external coil from accidental damage.
- **AVX** Anti-vibration mounts to be installed under the base of the unit.

### Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current by about 26%.  
**Available only with 400V power supply.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

## Compatibility of accessories

Mod. NRP	Vers.	0800	0900	1000	1250	1404	1504	1655	1800	
AER485P1	Alls	•	•	•	•	•	•	•	•	
AERWEB300	Alls	•	•	•	•	•	•	•	•	
MULTICHILLER_NRP	Alls	•	•	•	•	•	•	•	•	
PGD1	Alls	•	•	•	•	•	•	•	•	
GP	Alls	GP260	GP260	GP260	GP350	GP350	GP350	GP500	GP500	
AVX (00)	Alls	704	710	716	719	725	730	734	737	
AVX (P1-P2-P3-P4)	Alls	706	712	712	721	727	732	736	736	
AVX (P1-R1÷P4-R4)	Alls	706	712	712	721	727	732	736	736	
Accessories factory fitted only										
DRE	(1)	Alls	801	901	1001	1251	1404	1504	1655	1801
RIF		Alls	88	90	92	92	92	92	93	94

(1) Only available for 400V/3/50Hz power supply

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	NRP
4,5,6,7	Size
	0800-0900-1000-1250-1404-1504-1655-1800
8	Version
	A High efficiency
	E High efficiency in low noise operation
9	System type
	2 2-pipe system (cooling + DHW heating)
	4 4-pipe system (cooling + heating)
10	Coil
	° In aluminium
	R In copper
	S In tinned copper
	V Coated aluminium (epoxy paint)
11	Fans
	° Standard
	J High static pressure Inverter
12	Power supply
	° 400V/3/50Hz with circuit breakers
13-14	System integrated hydronic module
	00 without pumps
	P1 n°1 low head pump
	P2 n°2 low head pump
	P3 n°1 high head pump
	P4 n°2 high head pump
15-16	Heat recovery integrated hydronic module
	00 without pumps
	R1 n°1 low head pump
	R2 n°2 low head pump
	R3 n°1 high head pump
	R4 n°2 high head pump

NRP		NRP 0800 ... 1000				
		Heat recovery integrated hydronic module				
System integrated hydronic module		°	R1	R2	R3	R4
	°	ok	ok	n.d.	ok	n.d.
	P1	ok	ok	n.d.	ok	n.d.
	P2	ok	ok	n.d.	ok	n.d.
	P3	ok	ok	n.d.	ok	n.d.
	P4	ok	ok	n.d.	ok	n.d.

NRP		NRP 1250 ... 1800				
		Heat recovery integrated hydronic module				
System integrated hydronic module		°	R1	R2	R3	R4
	°	ok	ok	ok	ok	ok
	P1	ok	ok	ok	ok	ok
	P2	ok	ok	ok	ok	ok
	P3	ok	ok	ok	ok	ok
	P4	ok	ok	ok	ok	ok

nd = not available

## Technical Data

Mod. NRP Multipurpose for 2-pipe system			0800	0900	1000	1250	1404	1504	1655	1800
<b>Cooling system side</b>										
Cooling capacity	A	kW	217	242	259	321	363	400	439	475
	E	kW	199	216	229	290	331	367	400	428
Total input power	A	kW	73,52	83,41	89,40	109,36	122,55	136,71	147,20	157,93
	E	kW	81,23	95,24	101,32	121,82	135,62	150,55	163,11	176,67
EER	A	W/W	2,95	2,90	2,89	2,94	2,97	2,93	2,98	3,01
	E	W/W	2,45	2,27	2,26	2,38	2,44	2,44	2,46	2,42
Water flow rate	A	l/h	37498	41796	44753	55556	62852	69171	75888	81966
	E	l/h	34477	37289	39609	50044	57122	63288	69115	73977
Total pressure drop	A	kPa	59	58	54	64	52	53	55	55
	E	kPa	50	47	43	54	43	44	46	45
<b>Heating system side</b>										
Heating capacity	A/E	kW	242	259	292	387	402	461	506	547
Total input power	A/E	kW	74,65	81,11	89,40	117,15	121,47	139,96	155,68	167,47
COP	A/E	W/W	3,25	3,20	3,26	3,30	3,31	3,30	3,25	3,27
Water flow rate	A/E	l/h	41452	44312	49946	66115	68833	78870	86579	93555
Total pressure drop	A/E	kPa	72	66	68	93	63	68	72	72
<b>Heating DHW side</b>										
Heating capacity	A/E	kW	242	259	291	385	401	460	505	546
Total input power	A/E	kW	74,26	80,71	89,01	116,04	120,95	139,45	155,00	166,80
COP	A/E	W/W	3,26	3,21	3,27	3,32	3,32	3,30	3,26	3,27
Water flow rate	A/E	l/h	41452	44312	49946	66048	68833	78870	86579	93555
Total pressure drop	A/E	kPa	50	44	49	49	44	51	51	53
<b>Cooling with heat recovery</b>										
Cooling capacity	A/E	kW	226	254	282	339	384	428	470	503
Recovered power	A/E	kW	291	330	366	434	493	552	601	645
Total input power	A/E	kW	68,92	80,24	89,65	102,00	116,23	132,97	140,38	151,76
Water flow rate (system side)	A/E	l/h	38924	43834	48556	58291	66151	73685	80797	86568
Total pressure drop (system side)	A/E	kPa	63	64	63	70	57	60	62	61
Water flow rate (DHW side)	A/E	l/h	49708	56417	62609	74305	84453	94601	102857	110425
Total pressure drop (DHW side)	A/E	kPa	72	72	78	63	66	73	72	74
TER (1)	A/E	W/W	7,50	7,29	7,23	7,58	7,55	7,38	7,63	7,57

Mod. NRP Multipurpose for 4-pipe system			0800	0900	1000	1250	1404	1504	1655	1800
<b>Cooling system side</b>										
Cooling capacity	A	kW	217	242	259	321	363	400	439	475
	E	kW	199	216	229	290	331	367	400	428
Total input power	A	kW	73,52	83,41	89,40	109,36	122,55	136,71	147,20	157,93
	E	kW	81,23	95,24	101,32	121,82	135,62	150,55	163,11	176,67
EER	A	W/W	2,95	2,90	2,89	2,94	2,97	2,93	2,98	3,01
	E	W/W	2,45	2,27	2,26	2,38	2,44	2,44	2,46	2,42
Water flow rate	A	l/h	37498	41796	44753	55556	62852	69171	75888	81966
	E	l/h	34477	37289	39609	50044	57122	63288	69115	73977
Total pressure drop	A	kPa	59	58	54	64	52	53	55	55
	E	kPa	50	47	43	54	43	44	46	45
<b>Heating system side</b>										
Heating capacity	A/E	kW	242	259	291	385	401	460	505	546
Total input power	A/E	kW	74,26	80,71	89,01	116,04	120,95	139,45	155,00	166,80
COP	A/E	W/W	3,26	3,21	3,27	3,32	3,32	3,30	3,26	3,27
Water flow rate	A/E	l/h	41452	44312	49946	66048	68833	78870	86579	93555
Total pressure drop	A/E	kPa	50	44	49	49	44	51	51	53
<b>Cooling with heat recovery</b>										
Cooling capacity	A/E	kW	226	254	282	339	384	428	470	503
Recovered power	A/E	kW	291	330	366	434	493	552	601	645
Total input power	A/E	kW	68,92	80,24	89,65	102,00	116,23	132,97	140,38	151,76
Water flow rate (cold side)	A/E	l/h	38924	43834	48556	58291	66151	73685	80797	86568
Total pressure drop (cold side)	A/E	kPa	63	64	63	70	57	60	62	61
Water flow rate (hot side)	A/E	l/h	49708	56417	62609	74305	84453	94601	102857	110425
Total pressure drop (hot side)	A/E	kPa	72	72	78	63	66	73	72	74
TER (1)	A/E	W/W	7,50	7,29	7,23	7,58	7,55	7,38	7,63	7,57

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C; External air temperature 35°C

### Heating (14511:2013)

Condenser water temperature (in/out) 40°C/45°C; External air temperature 7°C b.s./6°C b.u.

### Cooling mode with heat recovery:

heat recovery water temperature (in/out) 40°C/45°C; Evaporator water temperature (out) 7°C

(1) Total Efficiency Ratio



## Technical Data

GENERAL DATA				0800	0900	1000	1250	1404	1504	1655	1800
Electrical data											
Total input current	(1)	A	A	136	158	180	196	235	273	289	304
	(1)	E	A	145	169	192	211	251	292	306	324
Maximum current (FLA)	(1)	A/E	A	173	195	217	267	296	325	365	398
Starting current (LRA)	(1)	A/E	A	348	404	426	535	505	534	633	666
Compressors											
Compressors	type			scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	n°			4	4	4	4	4	4	5	6
Circuits	n°			2	2	2	2	2	2	2	2
Capacity control	%										
Refrigerant				R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system											
Exchanger	type			plate	plate	plate	plate	plate	plate	plate	plate
	n°			1	1	1	1	1	1	1	1
hydraulic connections	(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"	4"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system											
Exchanger	type			plate	plate	plate	plate	plate	plate	plate	plate
	n°			2	2	2	2	2	2	2	2
hydraulic connections	(in/out)	Ø	3"	3"	3"	4"	4"	4"	4"	4"	4"
Fans standard											
Fans	type			axial	axial	axial	axial	axial	axial	axial	axial
	n°			4	4	4	6	6	6	8	8
Air flow rate	A	m³/h	85600	84600	83600	126000	124200	122400	168000	165600	
cooling mode	E	m³/h	59920	59220	60610	88200	90000	91800	117600	115920	
Air flow rate heating mode		m³/h	85600	84600	83600	126000	124200	122400	168000	165600	
System integrated hydronic module											
Useful head	kPa			For more information, refer to the selection program or the technical documentation							
Sound data (cooling mode)											
Sound pressure	(2)	A	dB(A)	56,5	56,5	56,5	59,5	59	58,5	60	62
	(2)	E	dB(A)	51	51	51	54	53,5	53	54,5	56,5
Sound power	(2)	A	dB(A)	88,5	88,5	88,5	91,5	91	91,5	92	94
	(2)	E	dB(A)	83	83	83,5	86	85,5	85	86,5	88,5
Power supply	V/ph/Hz		400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz	400V/3/50Hz

### Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

### Sound pressure

Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

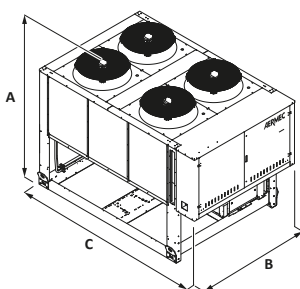
(1) The electrical data of the versions without hydronic module integrated

(2) Calculated in cooling mode

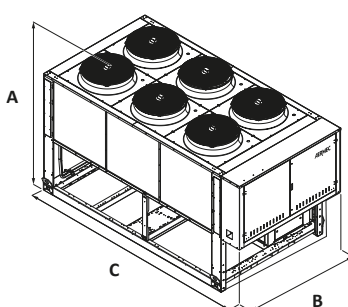
**Note:** For more information, refer to the selection program or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)

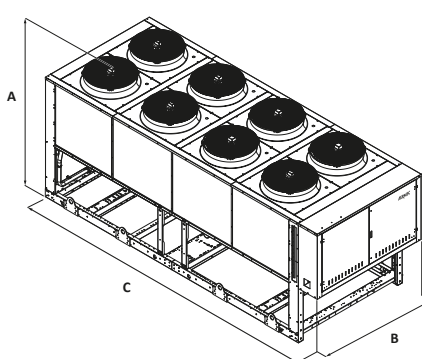
NRP0800-1000



NRP1250-1504



NRP1655-1800



Mod. NRP	Vers	0800	0900	1000	1250	1404	1504	1655	1800
Height	(mm) A	Alls	2450	2450	2450	2450	2450	2450	2450
Width	(mm) B	Alls	2200	2200	2200	2200	2200	2200	2200
Depth	(mm) C	Alls	3400	3400	3400	4250	4250	5750	5750
Weight when empty	(kg)		2270	2460	2640	2970	3220	3430	4090

Aermec reserves the right to make all modification deemed necessary for improving the product at any time with any modification of technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# NXP

**Multipurpose  
Water/Water for indoor installation  
scroll compressor plate exchanger  
Cooling capacity 109 - 501kW  
Heating capacity 123 - 560kW**

**HFC**  
Refrigerant  
**R410A**



- **DESIGNED FOR 2 AND 4-PIPE SYSTEMS**
- **HIGH EFFICIENCY EVEN AT PART LOAD**
- **OPTION VERSION WITH BUILT-IN HYDRONIC KIT**

## Characteristics

NXP is the range of multipurpose external units operating on refrigerant R410A, designed for **2 or 4-pipe systems**. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.

### Version

**NXP\_°** Multipurpose standard

**NXP\_L** Multipurpose Low noise

### Operational limits (1)

- Maximum leaving water temperature 55°C Heating mode
- 2refrigerant circuits
- High efficiency scroll compressors with low power input

- Heat exchangers optimised to benefit from the excellent heat transfer characteristics of R410A.
- High and low pressure transducers as standard
- The built-in hydronic module includes the main water circuit components; it is available in various configurations with one or two pumps with high or low head both on the system side and recovery side.
- Microprocessor controls
  - Control from the leaving water temperature
  - Automatic rotation of compressors and pumps based on operating hours
  - Programmable time-clock
  - Analog Inputs Multifunction 0-10V, or da 4-20mA
- Load limiting safety control
- Electrical panel with wires numbered all the main components of security and control
- Externally mounted user interface with display of all operating parameters in 4 languages
- Structure and base in hot dip galvanised sheet steel with epoxy pain finish (RAL 9002)

(1) For more details on operating limits, refer to the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Accessories

- **AER485P1:** RS-485 interface for supervising systems with MODBUS protocol.
- **AERWEB300:** The AERWEB option allows remote control of a chiller through a standard PC and an ethernet connection with a standard browser; 4 versions available:  
**AERWEB300-6:** Web server to monitor and remote control maximum 6 units on RS485 network;  
**AERWEB300-18:** Web server to monitor and remote control maximum 18 units on RS485 network;  
**AERWEB300-6G:** Web server to monitor and

remote control maximum 6 units on RS485 network with integrated GPRS modem;

**AERWEB300-18G:** Web server to monitor and remote control maximum 18 units on RS485 network with integrated GPRS modem.

- **MULTICHILLER\_NRP:** Control system to switch the individual multipurpose on and off, and command them, in a system in which several units are installed in parallel, always ensuring a constant delivery to the exchanger.
- **PGD1:** Simplified remote panel. Allows control of basic unit functions and alarm notification. Remote mounted up to 500 m away with

TWISTED PAIR SCREENED cable and TCONN6J000..

- **AVX** Anti-vibration mounts to be installed under the base of the unit.

### Accessories factory fitted only

- **DRE:** Electronic soft starter which reduces starting current.  
**Available only with 400V power supply.**
- **RIF:** Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

## Compatibility of accessories

Mod. NXP	Vers.	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
AER485P1	All	*	*	*	*	*	*	*	*	*	*	*	*	*
AERWEB300	All	*	*	*	*	*	*	*	*	*	*	*	*	*
MULTICHILLER_NRP	All	*	*	*	*	*	*	*	*	*	*	*	*	*
PGD1	All	*	*	*	*	*	*	*	*	*	*	*	*	*
AVX	(1) All	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>Accessories factory fitted only</b>														
DRE	(2) All	501	551	601	651	701	751	801	901	1001	1251	1401	1401	1401
RIF	All	98	98	95	95	95	95	95	96	97	97	97	97	97

(1) Contact us for the compatibility

(2) Only available for 400V/3N/50Hz power supply

## Unit Configurator

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Code
1,2,3	NXP
4,5,6,7	Size
	0500-0550-0600-0650-0700-0750-0800-0900-1000-1250-1400-1500-1650
8	<b>Field of use:</b>
	° standard thermostatic expansion valve (3)
9	<b>System type</b>
	2 2-pipe system (cooling + DHW heating)
	4 4-pipe system (cooling + heating)
10	<b>Version</b>
	° Standard
	L Low noise
11	<b>Power supply</b>
	° 400V/3N/50Hz with circuit breakers
	4 220V/3/50Hz with circuit breakers (4)
	5 500V/3/50Hz with circuit breakers (5)
12	<b>System integrated hydronic module</b>
	° without pumps or buffer tank
	M n°1 low head pump
	N n°2 low head pumps
	O n°1 high head pump
	P n°2 high head pumps
13	<b>Heat recovery integrated hydronic module</b>
	° without pumps or buffer tank
	U n°1 low head pump
	V n°2 low head pumps
	W n°1 high head pump
	Z n°2 high head pumps

(3) leaving water above +4 °C

(4) Only size 0500÷0700

(5) Only size 0800÷1000

## Technical Data

Mod. NXP Multipurpose for 2-pipe system		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
<b>Cooling system side</b>														
Cooling capacity	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	W/W	4,51	4,46	4,56	4,47	4,51	4,46	4,50	4,49	4,61	4,56	4,60	4,54	4,54
ESEER	W/W	5,84	5,78	5,84	5,80	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Total pressure drop	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate geothermal side	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Total pressure drop	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
<b>Heating system side</b>														
Heating capacity	kW	123	131	159	176	211	240	289	321	353	384	434	491	551
Total input power	kW	29	32	38	43	51	59	70	78	83	91	102	117	130
COP	W/W	4,17	4,13	4,16	4,11	4,12	4,06	4,12	4,10	4,25	4,23	4,25	4,19	4,22
Water flow rate system side	l/h	21013	22491	27168	30160	36076	40998	49658	55144	60599	65943	74492	84108	94416
Total pressure drop	kPa	27	31	34	41	49	57	24	29	22	26	30	38	40
Water flow rate geothermal side	l/h	27248	29109	35220	38994	46709	52918	64027	71019	78774	85679	96918	109091	122810
Total pressure drop	kPa	36	40	39	47	51	56	40	48	36	44	50	63	67
<b>Heating DHW side</b>														
Heating capacity	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	W/W	4,26	4,21	4,26	4,21	4,20	4,17	4,20	4,16	4,27	4,29	4,30	4,23	4,26
Water flow rate DHW side	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Total pressure drop	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate geothermal side	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Total pressure drop	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
<b>Cooling with heat recovery</b>														
Cooling capacity	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77,0	82,3	89,8	101,2	116,0	129,6
Water flow rate system side	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Total pressure drop	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate DHW side	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Total pressure drop	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER	(6)	W/W	7,60	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,80	7,67	7,70

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C;

Condenser water temperature (in/out) 30°C/35°C

### Heating (14511:2013)

Condenser water temperature (in/out) 40°C/45°C;

Evaporator water temperature (in/out) 10°C/7°C

### Heating mode with heat recovery

Condenser water temperature (in/out) 40°C/45°C;

Evaporator water temperature (in/out) 10°C/7°C

### Cooling mode with heat recovery

heat recovery water temperature (in/out) 40°C/45°C;

Evaporator water temperature (out) 7°C

Mod. NXP Multipurpose for 4-pipe system		500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
<b>Cooling system side</b>														
Cooling capacity	kW	109	117	141	157	192	218	252	281	305	345	392	446	501
Total input power	kW	24	26	31	35	43	49	56	62	66	76	85	98	110
EER	W/W	4,51	4,46	4,56	4,47	4,51	4,46	4,50	4,49	4,61	4,56	4,60	4,54	4,54
ESEER	W/W	5,84	5,78	5,84	5,80	5,79	5,76	5,69	5,76	6,05	5,91	5,98	5,85	5,86
Water flow rate system side	l/h	18755	20146	24376	27139	33192	37640	43434	48392	52654	59430	67539	76989	86485
Total pressure drop	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate geothermal side	l/h	22558	24271	29256	32655	39871	45278	52350	58310	63243	71477	81081	92547	103914
Total pressure drop	kPa	33	37	41	49	59	69	28	34	26	32	36	45	49
<b>Heating system side</b>														
Heating capacity	kW	125	133	161	179	214	243	294	326	355	391	441	498	560
Total input power	kW	29	32	38	43	51	58	70	78	83	91	102	118	132
COP	W/W	4,26	4,21	4,26	4,21	4,20	4,17	4,20	4,16	4,27	4,29	4,30	4,23	4,26
Water flow rate system side	l/h	21380	22870	27647	30694	36679	41713	50401	55862	60964	67043	75574	85323	95990
Total pressure drop	kPa	21	24	24	29	31	35	25	30	22	27	31	39	42
Water flow rate geothermal side	l/h	27945	29810	36137	40009	47803	54252	65510	72483	79555	87695	98988	111399	125643
Total pressure drop	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
<b>Cooling with heat recovery</b>														
Cooling capacity	kW	96	102	125	139	165	190	226	250	282	308	340	391	444
Recovered power	kW	124	132	160	179	213	245	291	323	361	393	436	502	567
Total input power	kW	28,9	31,2	37,3	41,9	50,2	57,5	69,1	77,0	82,3	89,8	101,2	116,0	129,6
Water flow rate (cold side)	l/h	16568	17667	21508	23939	28503	32842	38879	43108	48668	53048	58568	67500	76593
Total pressure drop (cold side)	kPa	15	17	17	20	22	24	17	20	15	19	21	26	28
Water flow rate (hot side)	l/h	21183	22654	27472	30630	36518	42018	49961	55438	61889	67463	74778	86029	97273
Total pressure drop (hot side)	kPa	22	25	25	30	33	36	26	31	24	28	33	41	44
TER	(6)	W/W	7,60	7,51	7,63	7,57	7,53	7,57	7,48	7,45	7,82	7,80	7,67	7,70

### Cooling (14511:2013)

Evaporator water temperature (in/out) 12°C/7°C;

Condenser water temperature (in/out) 30°C/35°C

### Heating (14511:2013)

Condenser water temperature (in/out) 40°C/45°C;

Evaporator water temperature (in/out) 10°C/7°C

### Cooling mode with heat recovery

heat recovery water temperature (in/out) 40°C/45°C;

Evaporator water temperature (out) 7°C

## Technical Data

GENERAL DATA			500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Electrical data only cooling mode															
Total input current	(7)	A	47	50	58	65	83	90	92	100	106	135	149	169	188
only heating mode															
Total input current	(7)	A	54	58	68	76	95	103	112	123	130	154	173	196	217
only recovery mode															
Total input current	(7)	A	54	57	67	75	94	103	110	122	129	153	171	194	216
Cooling heat recovery mode															
Total input current	(7)	A	54	57	67	75	95	103	110	121	129	153	171	195	216
Maximum current (FLA)	(7)	A	71	77	91	102	124	135	163	179	195	208	237	266	295
Starting current (LRA)	(7)	A	214	220	206	216	267	323	332	340	356	459	488	600	629
Compressors															
Compressors		type	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
		n°	3	3	4	4	4	4	4	4	4	4	4	4	4
Circuits		n°	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant			R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Exchanger side (hot/cold) 2 pipe system / side (cold) 4 pipe system															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7) (in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger side (DHW) 2 pipe system / side (hot) 4 pipe system															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7) (in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
Exchanger side (geothermal)															
Exchanger		type	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate	plate
		n°	1	1	1	1	1	1	1	1	1	1	1	1	1
hydraulic connections	(7) (in/out)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"	3"	3"	3"	3"
System integrated hydronic module															
For more information, refer to the selection program Magellan or the technical documentation available															
Sound data (Cooling mode)															
Sound pressure	(8)	°	dB(A)	46	47	47	48	50	54	56	56	58	58	60	60
	(8)	L	dB(A)	40	41	41	42	44	48	50	50	52	52	54	54
Sound power	(8)	°	dB(A)	78	79	79	80	82	86	88	88	90	90	92	92
	(8)	L	dB(A)	72	73	73	74	76	80	82	82	82	84	84	86
Power supply		V/ph/Hz	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3	400V/3

### Sound power

Aermec determines sound power values on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification.

### Sound pressure

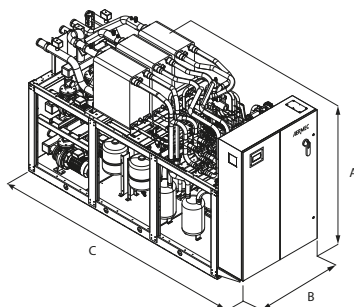
Sound pressure in free field, at 10 m distance from the external surface of the unit (in accordance with UNI EN ISO 3744).

(7) The technical data are versions without hydronic module integrated

(8) Calculated in cooling mode

**Note:** For more information, refer to the selection program Magellan or the technical documentation available on the website [www.aermec.com](http://www.aermec.com)

## Dimensions (mm)



Mod. NXP (without pumps)		Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Height	(mm)	A	°	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
		L		2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width	(mm)	B		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Depth	(mm)	C		2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600

Mod. NXP (with pumps)		Vers	500	550	600	650	700	750	800	900	1000	1250	1400	1500	1650
Height	(mm)	A	°	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
		L		2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
Width	(mm)	B		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
Depth	(mm)	C		3452	3452	3452	3452	3452	3452	3452	3750	3750	3750	3750	3750

# PRECISION AIR CONDITIONERS

Aermec is well established in the data centre market, with a multiple year experience and prestigious projects aimed at reducing the overall cost of ownership of modern data centres. This process is achieved by applying state of the art product solutions with a strong focus on integrated design and sophisticated analyses of individual data centre customer requirements, with the aim of achieving a personalised and optimised solution for each and every individual installation site.

PRECISION AIR CONDITIONING		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
<b>P</b>	Direct expansion (air or water cooled); chilled water	-	7,7-186,9	-	474
<b>G</b>	Direct expansion (air or water cooled); chilled water	-	43,0-183,5	-	478
<b>R (in Rack)</b>	Direct expansion (air or water cooled); chilled water	-	20,3-36,2	-	482
<b>UFB20</b>	Booster unit for floating floor installation	140-740	-	-	486

**P**  
**10/932**

## Precision Air Conditioners:

**X** air or water-condensed direct expansion  
**W** chilled water  
Cooling capacity 7÷187kW

HFC  
Refrigerant  
**R410A**



Downflow



Upflow



Last generation control panel.

- **STRICT CONTROL OF ROOM TEMPERATURE AND HUMIDITY.**
- **A HIGH RATIO OF COOLING POWER AND FOOTPRINT, WHICH FACILITATES THE DESIGN OF THE ROOMS TO BE AIR-CONDITIONED.**
- **HIGH ENERGY EFFICIENCY VALUES, RESULTING IN LOWER CO2 EMISSIONS IN THE ENVIRONMENT AND IN PARTICULARLY LOW OPERATING COSTS.**

## FEATURES

**P** series precision air conditioning units have design and operational features suitable for rooms where sensible nature heat loads are prevailing.

### CONFIGURATIONS

**PXO:** upwards flow air conditioners with direct expansion with air or water condensation.

**PWO:** upwards flow air conditioners with chilled water.

**PXU:** downwards flow air conditioners with direct expansion with air or water condensation.

**PWU:** downwards airflow air conditioners with chilled water.

### FEATURES

The **P** series precision air conditioning units are designed for precision air conditioning of technological rooms characterized by elevated thermal loads to be eliminated, such as computing centres and other applications where high performances and maximum reliability are required.

Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating and high efficiency filters.

In order to guarantee the maximum reliability and flexibility, there are available both solutions with double circuit and solution with different cooling mediums:

• **TWO SOURCES:** The Twin Sources system ensures cooling continuity in case of unavailability, for whatever reason, of the primary source: overhead, maintenance, night or seasonal stop or stop for any emergency. This system includes the assembly inside the air conditioner of a second cooling source, complete with its regulation and completely independent from the

primary one. They only share the aluminium finned pack, allowing both a high thermal exchange efficiency.

• **FREE COOLING:** This system employs external air, a renewable energy source, for cooling the Free Cooling water circuit by an external dry cooler. The Free Cooling circuit works in place of, or along, the mechanical cooling with direct expansion.

These coolers are designed and optimized for working with refrigerant R410A, which is not dangerous for the ozone.

### STRUCTURE

The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.

### COILS

Large surface batteries, positioned in such a way as to optimise airflow and heat transfer, made of refrigerating quality copper tubes with aluminium louvers mechanically merged, fitted with motorised 3way valve (2way is also available in the selection process).

### COMPRESSORS

High efficiency scroll compressor with low power consumption. In dual circuit configuration you can control the power output thanks to electronic adjustment that automatically manages the compressors activation depending on the load request.

### FANS

Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

### FILTERS

Corrugated baffle filters, not regenerable, self-

extinguishing, G4 efficiency class (according to EN 779). Differential pressure switch (STANDARD) for dirty filter alarm.

### ELECTRONIC REGULATION

Thanks to the control via Modbus® Master protocol all major components of the units have a continuous supervision, with over 50 different variables that provide real-time monitoring of all operating cycles. Thanks to specific functions dedicated to energy saving and optimized management of all unit operating cycles, both with direct expansion and with chilled water. Thanks to the integrated RS485 Modbus® board, and to an interface gateway BACnet, LonWorks and SNMP, a simple and fast interface to supervision systems and BMS (Building Management System) is possible. View of all operating parameters in 8 languages.



## ACCESSORIES

### DIRECT EXPANSION

- DC brushless compressors with inverter control
- Electric power supply line for remote condenser
- Electric power supply line with speed adjustment for remote condenser
- Condenser adjustment with 0-10V signal for remote condenser with EC fans
- "LT Kit" for external air low temperature functioning with remote condenser
- Increased liquid receiver
- Non-return valves on the flow and liquid lines
- Water condenser
- Water condenser with valve for adjusting the condensation temperature
- "HT Kit" for functioning with high condensation temperatures

### CHILLED WATER:

- Two ways modulating valves
- Inlet and outlet water temperature probes
- "Power Valve" Kit

### HEATING:

- Low thermal inertia electric batteries with differentiated stages regulation
- Low thermal inertia electric batteries with modulating regulation (available on request on some models only)
- Water heating batteries with 2 or 3 ways modulating valve (available on request on some models only)

### HUMIDIFICATION:

- Room humidity probe
- Flow humidity probe
- Immersed electrode humidifier

### MECHANICALS AND STRUCTURAL:

- Condensation drain pump
- Condensation and humidifier drain pump
- Flow overpressure dampers
- M5 (EU5) efficiency air filter on air supply
- Soundproofed duct piece on flow
- Flow plenum with adjustable grills.
- Height adjustable support for raised floor installation
- Grilled panels for front flow
- Closed panels for downwards air intake
- Panels with "sandwich" counter-panels (available on request on some models only)
- Panels with increased soundproof upholstery (available on request on some models only)

### ELECTRICAL:

- Alternative available voltages: 460V/3ph/60Hz - 380V/3ph/60Hz - 230V/3ph/60Hz
- Electric power supply line without neutral
- "Basic" version automatic transfer switch (ATS)
- "Advanced" version automatic transfer switch (ATS)

### ADJUSTMENT:

- Constant flow rate ventilation adjustment
- Constant pressure ventilation adjustment

- Local area network configuration and cable
- User terminal for remote installation
- Flooding detection system

**Note:** For further information, refer to the selection program.

## SMARTNET

The innovative **SMARTNET** system revolutionises the local area network concept.

This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.

Compared to Duty Stand-by latent redundancy system (n+1 or n+n) where backup units were still waiting for the emergence of a problem, the **SMARTNET system allows maintaining the units connected on the network always active.**

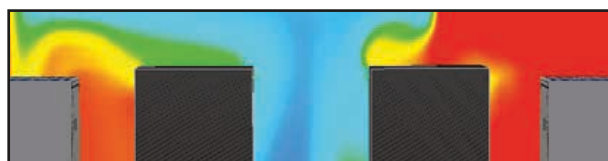
### DUTY / STAND-BY



On 100%

On 100%

Stand-by



On 100%

Stand-by

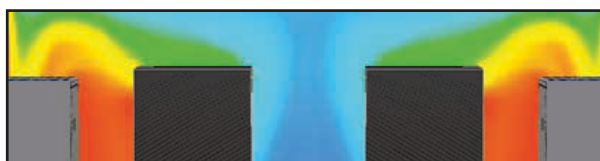
### SMARTNET



On 66%

On 66%

On 66%



On 60%

On 60%

## TECHNICAL DATA

### PXO: upwards airflow - direct expansion with air or water condensation

Sizes		71	141	211	251	301	302	361	422	461	512	662	852	932
Total cooling capacity	(1) kW	7,8	14,9	21,3	26,8	33,6	30,9	37,8	43,7	48,1	54,2	67,3	90,1	93,3
Sensitive cooling capacity	(1) kW	7,6	13,4	21,3	25,6	31,7	30,6	37,8	43,7	47,9	52,8	64,8	77,0	85,0
EER	(2)	3,71	3,37	3,15	3,18	3,08	3,2	3,30	3,27	3,43	3,25	3,13	3,33	3,53
<b>Centrifugal</b>	type	Plug fan EC												
Air flow rate	m3/h	2200	3200	7000	7000	8700	8700	14500	14500	14500	14500	17900	17900	20700
<b>Sound data</b>														
Sound Pressure	(3) dB(A)	51	57	62	62	60	60	65	65	65	65	62	62	60
<b>Possible configurations</b>														
Free Cooling						•	•					•	•	
Two Sources				•		•	•					•	•	

### PWO: upwards airflow - with chilled water

Sizes		10	20	30	50	80	110	160	220
Total cooling capacity	(1) kW	10,0	18,0	32,4	43,6	66,8	80,2	121,9	160,3
Sensitive cooling capacity	(1) kW	9,2	15,4	29,8	38,1	62,1	72,0	109,7	144,0
EER	(2)	34,42	28,52	22,83	21,48	23,95	24,29	23,62	24,29
<b>Centrifugal</b>	type	Plug fan EC							
Air flow rate	m3/h	2200	3200	7400	8200	15400	17000	26000	34000
<b>Sound data</b>									
Sound Pressure	(3) dB(A)	51	57	63	59	66	62	64	65
<b>Possible configurations</b>									
Free Cooling					•		•	•	
Two Sources					•		•	•	

### PXU: downwards airflow - direct expansion with air or water condensation

Sizes		71	141	211	251	301	302	361	422	461	512	662	852	932
Total cooling capacity	(1) kW	7,7	14,5	20,8	25,3	31,2	30,6	36,6	42,7	46,9	51,6	67,7	87,3	94,2
Sensitive cooling capacity	(1) kW	7,4	12,8	20,8	22,7	30,3	30,1	36,6	42,7	45,3	47,4	64,5	73,2	85,4
EER	(2)	3,69	3,36	3,12	3,06	3,13	3,2	3,24	3,22	3,37	3,14	3,25	3,29	3,59
<b>Centrifugal</b>	type	Plug fan EC												
Air flow rate	m3/h	2200	3200	7000	7000	8700	8700	14500	14500	14500	14500	17900	17900	20700
<b>Sound data</b>														
Sound Pressure	(3) dB(A)	51	57	62	62	60	60	65	65	65	65	62	62	60
<b>Possible configurations</b>														
Free Cooling						•	•					•	•	
Two Sources				•		•	•					•	•	

### PWU: downwards airflow - with chilled water

Sizes		10	20	30	50	80	110	160	220
Total cooling capacity	(1) kW	10,2	18,1	32,4	43,6	67,4	93,4	142,1	186,9
Sensitive cooling capacity	(1) kW	9,2	15,5	29,8	38,1	62,5	80,7	122,9	161,3
EER	(2)	34,42	29,24	22,83	21,48	24,16	24,02	23,33	24,02
<b>Centrifugal</b>	type	Plug fan EC							
Air flow rate	m3/h	2200	3200	7400	8200	15400	17000	26000	34000
<b>Sound data</b>									
Sound Pressure	(3) dB(A)	51	57	63	59	66	62	64	65
<b>Possible configurations</b>									
Free Cooling					•		•	•	
Two Sources					•		•	•	

■ **(1) Cooling:** condensation temperature 45°C; input air 24°C-45%; water 7/12°C; external static pressure: 30Pa.  
Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.

**(2) EER:** Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers)

**(3) Sound pressure:** stated data 2m away, in free field according to UNI EN ISO 3744:2010

## UPWARDS FLOW CONFIGURATIONS



Standard version with frontal air intake and upwards flow.



Version with front air intake and frontal air flow with distribution plenum with grid.

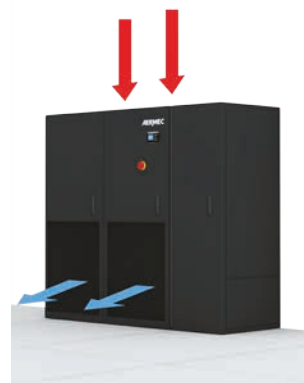
## DOWNWARDS FLOW CONFIGURATIONS



Standard version with upwards suction and downwards airflow, with sub-base for raised flooring.



Version with upwards suction with frontal air flow with grilled plenum distribution.



Version with upwards suction with frontal air flow with grilled front panel.

## DIMENSIONS

### Dimensional data

Mod. PXO - PXU	71	141	211	251	301	302	361	422	461	512	662	852	932
Height	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
Width	mm	750	750	860	860	1410	1410	1750	1750	1750	2300	2300	2640
Depth	mm	600	600	880	880	880	880	880	880	880	880	880	880
Weight	kg	180	210	270	270	320	340	440	450	450	500	640	860

### Dimensional data

Mod. PWO - PWU	10	20	30	50	80	110	160	220
Height	mm	1990	1990	1990	1990	1990	1990	1990
Width	mm	750	750	860	860	1750	1750	2640
Depth	mm	600	600	880	880	880	880	880
Weight	kg	155	160	220	240	340	360	540

**G**  
**070/932**

HFC  
Refrigerant  
**R410A**



Downflow

## Precision air conditioners:

**X** direct air or water condensate expansion  
**W** cooled water  
Cooling capacity 43÷183kW



Latest generation control panel.

- **INCREASE AT THE FRONT SECTION OF THE COIL BY ABOUT 40-50% THEREBY REDUCING ITS AIR-SIDE PRESSURE DROPS AND CONSEQUENTLY THE POWER CONSUMPTION OF THE FANS.**
- **INCREASE AT THE DIMENSION OF THE AIR FILTERS INSTALLED UP-LINE OF THE COLD COIL, THAT BRINGS ABOUT A REDUCTION OF PRESSURE DROPS AND LESS MAINTENANCE.**
- **INCREASE AT THE EFFICIENCY OF THE FANS INSTALLED IN THE SUB-BASE EXPEL TREATED AIR HORIZONTALLY.**

## CHARACTERISTICS

The precision air conditioners in the G Series have build and operating features that meet latest generation Data Center design criteria.

### CONFIGURATIONS

**GXU:** air conditioners with delivery downwards and direct expansion with air or water condensation.

**GWU:** air conditioners with delivery downwards with cooled water.

### CHARACTERISTICS

The precision air conditioners in the **G** Series are designed to condition technological premises for applications with high power density. In such applications, installations are characterised by technical flooring of heights up to 800mm, thereby creating ample space underneath for housing delivery fans. The fans are fitted inside with a separate sub-base, without increasing the dimensions of the unit, thereby optimising available space with significant advantages:

- Thanks to the over-sized coils with a large heat-exchange surface area, high yields are achieved with less energy consumption.
- Larger filtering surface area that allows reduced pressure drops and maintenance work thanks to cleaner operation.
- Horizontal fan delivery in the sub-base with lower pressure drops.

The range has been designed and optimised for operation with ozone benign refrigerant R410A.

### STRUCTURE

The set-up comprises a dark grey (RAL7024) epoxy powder painted steel frame ensuring a long-lasting finish. Self-extinguishing thermal-acoustic insulation panels finished with anti-friction film. The ventilation sub-base is supplied separately and must be connected electrically on site or in loco.

### COILS

Coils with large surface area installed in ideal positions to optimise air flow and heat transfer; in refrigeration-quality copper piping with mechanically mounted aluminium fins. Cooled water machines are fitted as standard with motor-driven 2-way valves (a 3-way version is also available in the selection stage).

### COMPRESSORS

Scroll compressor with high capacity and low electrical power consumption. The two-circuit configuration can divide output yield thanks to electronic adjustment that automatically manages compressor activation depending on the pressure required.

### FANS

Centrifugal fans with backwards curved blades (plug-fan) and EC motor directly coupled to the electronic control to minimise electricity consumption and noise levels.

### FILTERS

Undulated filters, single-use, self-extinguishing, efficiency class G4 (according to EN 779). differential pressure switch (AS STANDARD) to signal 'filter dirty' status.

### ELECTRONIC ADJUSTMENT

Thanks to control through the Modbus® Master protocol, all the main components in the unit are constantly supervised, with more than 50 different variables to ensure real-time monitoring of all operating cycles. Thanks to specific functions dedicated to energy saving and optimised management of all the unit's operating cycles, with direct expansion and cooled water alike. Thanks to the built-in RS485 Modbus® card and the BACnet, LonWorks and SNMP interface gateway, fast and easy interfacing is possible with monitoring devices and BMS (Building Management System). Display of all operating parameters in 8 languages.

## ACCESSORIES

### DIRECT EXPANSION:

- Brushless DC compressors with inverter adjustment
- Power supply line for remote condenser
- Power supply line for remote condenser speed adjuster
- Condenser adjustment with 0-10V signal remote condenser with EC fans
- "Kit LT" for operating with low outside air temperature with the remote condenser
- Oversized liquid receiver tank
- Non-return valves on the delivery and liquid lines
- Water condenser
- Water condenser with condensing temperature adjustment valve
- "Kit HT" for operating with high condensation temperatures

### COOLED WATER

- Modulating 3-way valves
- Water temperature probes on inlet & outlet
- "Power valve" kit

### HEATING:

- Electrical coils with low thermal inertia and adjustment over differential stages
- Electrical coils with low thermal inertia and modulating adjustment (available on request only for certain models)

- Water-based heating coils with 2 or 3 way modulating (available on request only for certain models)

### HUMIDIFICATION:

- Ambient humidity probe
- Delivery humidity probe
- Immersed electrode humidifier

### MECHANICAL AND STRUCTURAL:

- Condensate discharge pump
- Condensate discharge and humidifier pump
- Overpressure gate valves on delivery
- Air filter on intake, efficiency M5 (EU5)
- Intake plenum
- Ventilated plenum with panelling for front or rear delivery
- Ventilated plenum with panelling for bottom delivery (installation above raised flooring)
- Panels with counter-panelling, "sandwich" type
- Panels with over-sized acoustic finishing

### ELECTRICAL:

- Alternative voltages available: 460V/3ph/60Hz - 380V/3ph/60Hz - 230V/3ph/60Hz
- Power supply line without neutral
- Automatic line selector switch (ATS) - "Basic" version
- Automatic line selector switch (ATS) - "Advanced" version

### REGULATION:

- Ventilation adjustment at constant capacity
- Ventilation adjustment at constant pressure
- Setting and cable for local network connection
- User terminal for remote installation
- Flooding detection system

**Note: For further information refer to the selection program.**

## SMARTNET

The innovative **SMARTNET** system revolutionises the local network concept.

This system exploits the modulating capacities of the components to actively divide the work load between all units present in the local network.

Compared to the Duty Stand-by latent redundancy system (n+1 or n+n), where the backup units were on hold waiting for a problem to arise, the **SMARTNET** system means that **the units connected in the network are always active.**

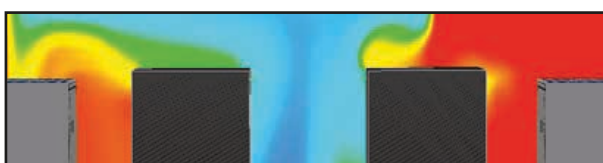
### DUTY / STAND-BY



On 100%

On 100%

Stand-by



On 100%

Stand-by

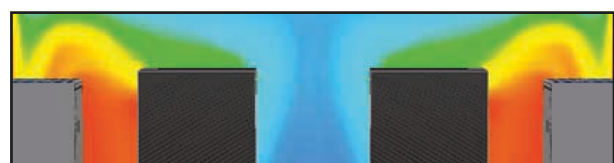
### SMARTNET



On 60%

On 60%

On 60%



On 60%

On 60%

## TECHNICAL DATA

### GXU: downwards air delivery - direct expansion with air or water condensation

Sizes			461	612	932
Total cooling capacity	(1)	kW	43,0	54,9	91,7
Sensible cooling capacity	(1)	kW	35,9	42,1	79,4
EER	(3)		3,39	2,86	3,60
Total cooling capacity	(2)	kW	46,6	58,8	99,6
Sensible cooling capacity	(2)	kW	46,6	53,1	99,6
EER	(3)		3,67	3,06	3,92
<b>Fans</b>		type	Plug fan EC		
Air flow rate		m3/h	9500	10000	19000
<b>Sound Data</b>					
Sound pressure	(4)	dB(A)	57	58	59

### GWU: downwards air delivery - cooled water

Sizes			70	150	230	300
Total cooling capacity	(1)	kW	47,7	91,7	128,3	183,5
Sensible cooling capacity	(1)	kW	42,1	82,6	119,9	165,3
EER	(3)		32,89	33,97	35,15	40,8
Total cooling capacity	(2)	kW	38,5	74,9	106,7	149,8
Sensible cooling capacity	(2)	kW	38,5	74,9	106,7	149,8
EER	(3)		27,7	26,98	29,81	34,51
<b>Fans</b>		type	Plug fan EC			
Air flow rate		m3/h	9500	19000	28500	38000
<b>Sound Data</b>						
Sound pressure (4)		dB(A)	57	59	61	60

- **(1) Cooling:** condensing temperature 45°C incoming air 24°C-45%; incoming air 24°C-45%; water 7/12°C; static external pressure: 30Pa; plenum ventilated, height 1000 mm. The stated performance levels do not take into account the heat generated by the fans, that should be added to the thermal impact of the installation.
- **(2) Cooling:** condensing temperature 45°C incoming air 30°C-30%; incoming air 12°C-40%; water 14/20°C; static external pressure: 30Pa; plenum ventilated, height 1000 mm. The stated performance levels do not take into account the heat generated by the fans, that should be added to the thermal impact of the installation.

**(3) EER:** Energy Efficiency Ratio; total cooling capacity / input power from compressors + fans (air condensers excluded).

**(4) Sound pressure** declared data at a distance of 2m in a free field in accordance with UNI EN ISO 3744:2010

**(\*) Sizes available only on request**

CONFIGURATIONS - DOWNWARDS DELIVERY



Standard execution for perimeter installation inside Data Centres: the height of the raised flooring must be minimum 550 mm.



Execution for perimeter installation inside Data Centre with height of raised flooring less than 550 mm. In this case, the sub-base having a fixed height of 550 mm c/w side closure panels must be installed above the flooring. It is in any case essential to make sure that the height of the ceiling allows good air intake.



Execution for installation outside Data Centre, without raised flooring and rear delivery. In this case, the sub-base having a fixed height of 550 mm c/w side closure panels and rear delivery grilles. Installation of the plenum with the rear return system is optional, if there is no channelling system.

DIMENSIONS

GXU models		461	612	932
Length	mm	1490	1490	2390
Depth	mm	921	921	921
Height	mm	1990	1990	1990
Net weight	kg	630	680	870

GWU models		70	150	230	300
Length	mm	1320	2220	3120	4020
Depth	mm	921	921	921	921
Height	mm	1990	1990	1990	1990
Net weight	kg	610	750	930	1250

All specifications are subject to change without prior notice. Although every effort has been made to ensure accuracy, Aermec does not assume responsibility or liability for eventual errors or omissions.

Aermec S.p.A.  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italy  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

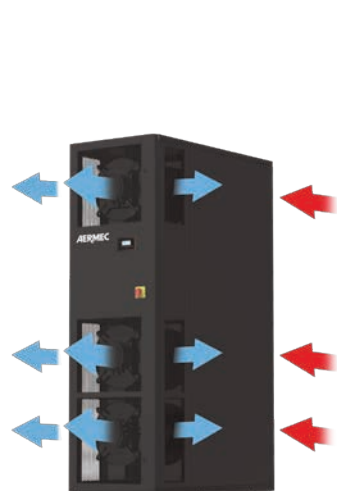


## R 40/361

HFC  
Refrigerant  
**R410A**

### Precision air conditioners installation type In Rack:

**A** direct air or water condensate expansion  
**U** cooled water  
Cooling capacity 20÷35kW



Execution for "In-row" installation with front and side air delivery.



Latest generation control panel.

- **EXPLOIT THE EMPTY SPACES LEFT BY THE RACKS TO ENSURE BETTER COOLING FOR THE SERVER.**
- **REAR INTAKE FROM WARM CORRIDOR**
- **FRONT DELIVERY TOWARDS COLD CORRIDOR WITH HORIZONTAL FLOW; THIS REDUCES INTERNAL PRESSURE DROPS, WITH CONSEQUENT REDUCTION OF THE POWER ABSORBED BY THE FANS.**
- **EASY FRONT AND REAR ACCESS FOR SIMPLIFIED MAINTENANCE.**
- **COOLING, HYDRAULIC AND ELECTRICAL CONNECTIONS FROM TOP OR BOTTOM.**

### CHARACTERISTICS

precision air conditioners in the R Series have build features and dimensions suitable for installation next to data centre racks.

#### CONFIGURATIONS

**RXA:** air conditioners with delivery downwards and direct expansion with air or water condensation.

**RXU:** air conditioners with air delivery horizontal with cooled water.

#### CHARACTERISTICS

Precision air conditioners in the R series are designed and built to have the same dimensions as the racks, rear intake from the warm corridor and front delivery towards the cold corridor.

The range has been designed and optimised for operation with ozone benign refrigerant R410A.

#### STRUCTURE

The set-up comprises a dark grey (RAL7024) epoxy powder painted steel frame ensuring a long-lasting finish. Self-extinguishing thermal-acoustic insulation panels finished with anti-friction film. The ventilation sub-base is supplied separately and must be connected electrically on site or in loco.

#### COILS

Coils with large surface area installed in ideal positions to optimise air flow and heat transfer; in refrigeration-quality copper piping with mechanically mounted aluminium fins, equipped as standard with 3-way motor-driven valves (also available as 2-way version in the selection stage).

#### COMPRESSORS

Brushless DC compressors with inverter adjustment, high yield and low electrical power consumption. **FANS** Centrifugal fans with backwards curved blades (plug-fan) and EC motor directly coupled to the electronic control to minimise electricity consumption and noise levels.

#### FILTERS

Undulated filters, single-use, self-extinguishing, efficiency class G4 (according to EN 779). differential pressure switch (AS STANDARD) to signal 'filter dirty' status.

#### ELECTRONIC ADJUSTMENT

Thanks to control through the Modbus® Master protocol, all the main components in the unit are constantly supervised, with more than 50 different variables to ensure real-time monitoring of all operating cycles.

Thanks to specific functions dedicated to energy saving and optimised management of all the unit's operating cycles, with direct expansion and cooled water alike. Thanks to the built-in RS485 Modbus® card and the BACnet, LonWorks and SNMP interface gateway, hadst and easy interfacing is possible with monitoring devices and BMS (Building Management System). Display of all operating parameters in 8 languages.

ACCESSORIES

DIRECT EXPANSION.

- Power supply line for remote condenser
- Power supply line for remote condenser speed adjuster
- Condenser adjustment with 0-10V signal remote condenser with EC fans
- "Kit LT" for operating with low outside air temperature with the remote condenser
- Oversized liquid receiver tank
- Non-return valves on the delivery and liquid lines
- Water condenser
- Water condenser with condensing temperature adjustment valve

COOLED WATER

- Modulating 2-way valves
- Water temperature probes on inlet & outlet
- "Power valve" kit

HEATING:

- Electrical coils with low thermal inertia and adjustment over differential stages

HUMIDIFICATION:

- Ambient humidity probe
- Delivery humidity probe
- Immersed electrode humidifier

MECHANICAL AND STRUCTURAL:

- Condensate discharge pump
- Air filter on intake, efficiency M5 (EU5)
- Closed front panel for side delivery
- Closed side panels for front delivery
- Handling wheels

ELECTRICAL:

- Alternative voltages available: 460V/3ph/60Hz - 380V/3ph/60Hz - 230V/3ph/60Hz
- Power supply line without neutral

- Automatic line selector switch (ATS) - "Basic" version
- Automatic line selector switch (ATS) - "Advanced" version

REGULATION:

- Ventilation adjustment at constant capacity
- Ventilation adjustment at constant pressure
- Setting and cable for local network connection
- User terminal for remote installation
- Flooding detection system

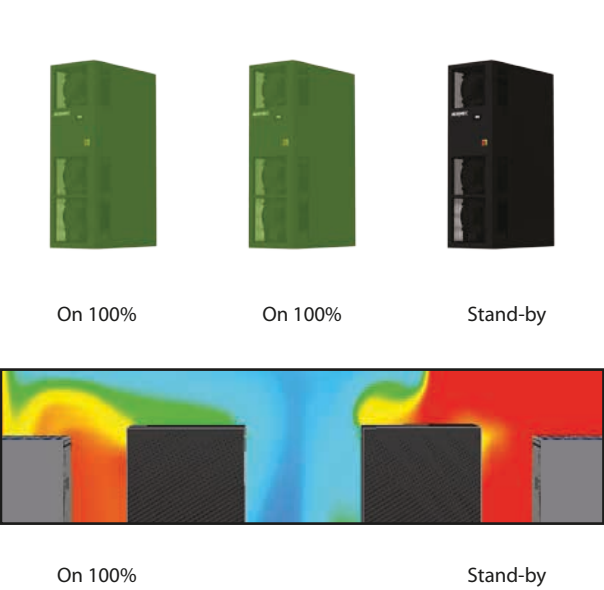
Note: For further information refer to the selection program.

SMARTNET

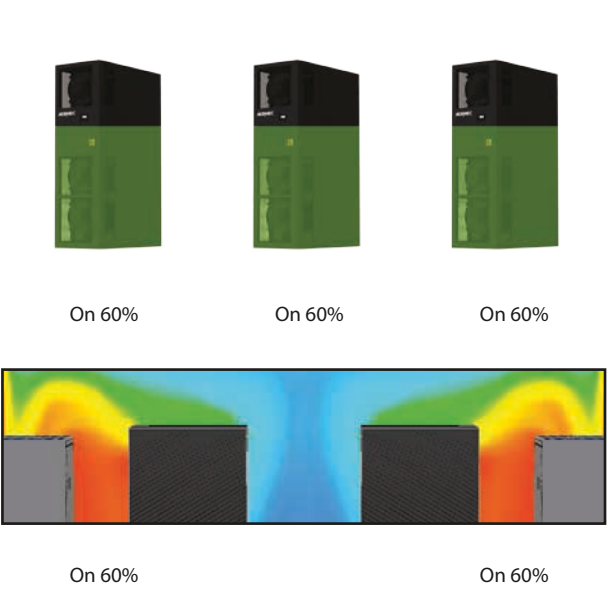
The innovative **SMARTNET** system revolutionises the local network concept. This system exploits the modulating capacities of the components to actively divide the work load between all units present in the local network.

Compared to the Duty Stand-by latent redundancy system (n+1 o n+n), where the backup units were on hold waiting for a problem to arise, the **SMARTNET** system means that **the units connected in the network are always active.**

DUTY / STAND-BY



SMARTNET



## TECHNICAL DATA

### RXA: horizontal air delivery - direct expansion with air or water condensation

Sizes			231	361
Total cooling capacity	(1)	kW	20,4	28,2
Sensible cooling capacity	(1)	kW	19,7	21,7
EER	(2)		3,29	2,95
Fans		type	Plug fan EC	
Air flow rate		m3/h	6000	7500
<b>Sound Data</b>				
Sound pressure	(3)	dB(A)	56	56
<b>Possible configurations</b>				
Free Cooling			•	
Two Sources			•	

### RXU: horizontal air delivery - cooled water

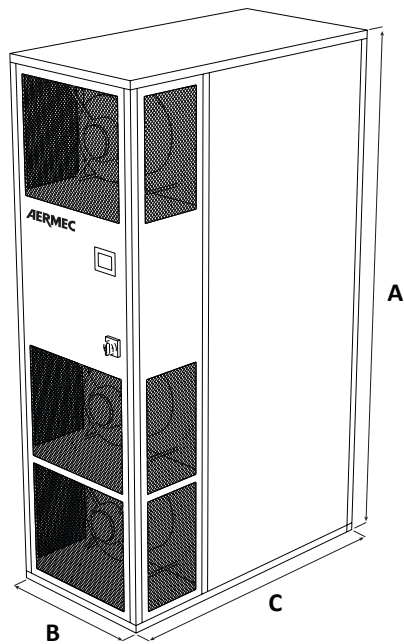
Sizes			40
Total cooling capacity	(1)	kW	35,4
Sensible cooling capacity	(1)	kW	33,5
EER	(2)		27,65
Fans		type	Plug fan EC
Air flow rate		m3/h	9000
<b>Sound Data</b>			
Sound pressure	(3)	dB(A)	61
<b>Possible configurations</b>			
Two Sources			•

■ **(1) Cooling:** condensing temperature 45°C incoming air 24°C-45%; incoming air 24°C-45%; water 7/12°C; static external pressure: 30Pa.  
The stated performance levels do not take into account the heat generated by the fans, that should be added to the thermal impact of the installation.

**(2) EER:** Energy Efficiency Ratio; total cooling capacity / input power from compressors + fans (air condensers excluded).

**(3) Sound pressure** declared data at a distance of 2m in a free field in accordance with UNI EN ISO 3744:2010

DIMENSIONS



Dimensional data RXA		231	361
Height	A	mm	2000
Width	B	mm	600
Depth	C	mm	1180
Weight		kg	215

Dimensional data RXU		40
Height	A	mm
Width	B	mm
Depth	C	mm
Weight		kg

## UFB

Booster unit with Brushless Inverter motor (EC)  
Floating floor installation



Typical installation

- LOWER ELECTRICITY CONSUMPTION
- VERY QUIET OPERATION
- EASY MAINTENANCE

### Features

Air handling terminal for installations in floating floor, also called floating or raised floor.

IS a unit consisting of a fan unit with **brushless inverter motor**, enclosed in a metal structure with mixing chamber equipped with motor-driven damper, filter and electronic card.

The use of these units is expected within a floating floor, often used in offices or equipment rooms for data centre and similar. In these systems there is often an air handling unit that cools the environment by entering the treated air in the underfloor and the buster units combine to improve the distribution in the rooms and, depending on the version, perform localized after-treatment.

Using the two ambient air temperature sensors (return air) and the underfloor air temperature

sensors, the electronic regulation through the positioning of the motor-driven damper, performs a mix to reach the temperature setpoint set with a possible supervision system.

#### Versions

**UFB20** booster unit for the distribution of the UTA treated air, the mix with room air for the room temperature control

**UFB20HE** booster unit for UTA treated air distribution, the mix with the ambient air and any post-treatment using electric heating coil (only in heating) for the control of the room temperature.

- Unit is easy to install, as completely compatible with squares 600x600 mm used in these applications. Using the normal support systems of such floating floors allow to fully replace a

square, obtaining a perfect joint, in line with the rest of the floor, with no "step".

- **Centrifugal fan with Brushless inverter** with continuous speed variation, 0-100%, which allows the exact adjustment to the requests of the internal environment without temperature fluctuations. Also allows an electric savings and better acoustic comfort.
- Thickness contained (219 mm)
- For a better air quality, the UFB are equipped with electro-statically pre-loaded filters

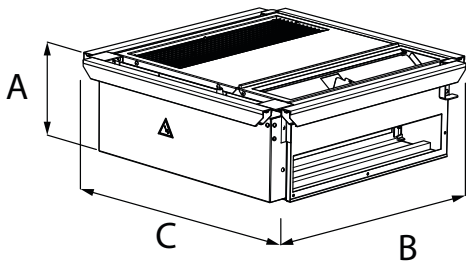
Technical data

UFB	Vel.		20	20HE
Air flow rate	m <sup>3</sup> /h	H	740	740
	m <sup>3</sup> /h	M	220	220
	m <sup>3</sup> /h	L	140	140
Fans	type		centrifugal	centrifugal
	no.		1	1
Input power	W	H	40	40
Electric heating coil	no.		/	1
Heater input power	W		/	500
Max. input current	(A)		/	0.2

H maximum speed; M average speed; L minimum speed

Sizes and weights

UFB	20/20HE		
Height	A	mm	219
Width	B	mm	571
Depth	C	mm	572
Weight		kg	16.5



# ROOM AIR CONDITIONERS

A complete range of units designed to meet all climate control requirements: Aermec the answer to air conditioning. A vast choice not only in terms of models but also alternatives and possibilities: state-of-the-art technology such as the inverter that optimises performance at all times according to the set temperature to achieve maximum energy saving; versatile installation options to solve all problems of space. Quality design and materials, cooling and heating power suited to cover all requirements both in the residential and commercial sector, exclusive elegant design complete the range features, ranking Aermec among the leaders on the market.



ROOM AIR CONDITIONERS		Air flow rate (m³/h)	Cool.Cap. (kW)	Pot. term. (kW)	Page
<b>Monosplit</b>					
<b>SK</b>	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-7,0	3,0-7,3	490
<b>SE</b>	Reversible heat pump	-	2,5-6,4	2,7-7,0	492
<b>SC</b>	Reversible heat pump with	-	12,0	13,6	494
<b>FK</b>	Packaged Air Conditioner	-	2,7-3,6	-	496
<b>COMPACT</b>	Packaged heating pump without outdoor unit	-	2,3	2,3	498
<b>CK</b>	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	2,6-5,2	2,7-5,5	500
<b>LCI</b>	Reversible heat pump	-	3,5-16,0	3,8-17,0	502
<b>MVA</b>	Reversible heat pump	-	22,4-28	25-30	506
<b>Multisplit</b>					
<b>MKM</b>	Reversible heat pump with air ioniser (Cold Plasma Generator)	-	4,1-12,1	4,4-13,0	508

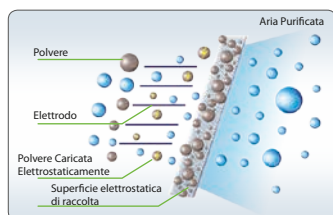
# SK

HFC  
Refrigerant  
R410A

INVERTER  
TECHNOLOGY

A+++

Maximum Seasonal  
Energy Efficiency  
(Refer to the Technical Data)



Operating principle of the **Electrostatic anti-dust filter**  
(electrically powered)



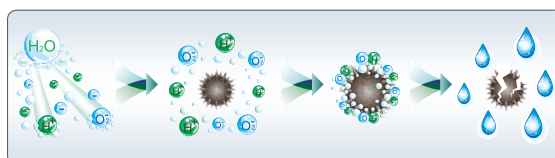
SK\_W



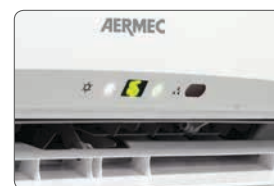
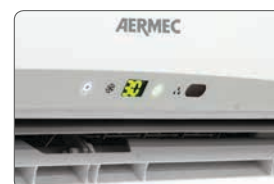
WRCA  
Wired Control Panel  
(Accessory)



SK



**Air Ionizer (Cold Plasma Generator):** reduces the polluting agents, decomposing their molecules by means of electrical charges and causing the division of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous polluting agents creating substances that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air without any unpleasant odours.



Extra Horizontal Louver

- 1 Activated in Heating Mode to improve the air distribution and avoid air stratification
- 2 Retracts in Cooling Mode

## Features

### Outdoor Unit:

- **SK**
- Outdoor Unit available in 4 size.
- Outdoor Unit with **Electrical Anti-Freeze Heater (in unit base)** to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Outdoor Unit with **DC Inverter Twin Rotary Compressor**.
- Outdoor Unit with DC Inverter Fan.
- Ultra Low Noise function.
- Outdoor Unit with Electronic Expansion Valve.

### Indoor Unit:

- **SK\_W**
- Indoor Unit available in 4 size.
- Indoor Unit fitted with double horizontal louvers and with vertical louvers, all motorised for optimum air flow control in two directions.
- The indoor unit fan works at 7 speeds, 5 of which can be directly selected using the "FAN" key, while the other 2 are set by means of a specific key. "QUIET" for extremely quiet operation. "TURBO" for reaching the required temperature as quickly as possible.

## Accessories

- **Wi-Fi KIT:** Plug & Play module to be installed in the indoor unit for Wi-Fi control. Using this accessory and the special App for iOS and Android devices (freely available on Apple Store and Google play), the system can be controlled from a distance, directly via your smartphone or tablet. The remote control

- "AUTO" function for continual speed variation.
- "Anti-Freeze" function for maintaining a minimum temperature of 8°C indoors during the winter months.
- "I FEEL" functioning: used to activate the indoor environment temperature probe on the remote control for better comfort.
- Air Filters easy to remove and clean.
- Electrostatic dust filter (electrically powered).
- Air Ioniser (**Cold Plasma Generator**).
- Infrared remote control with backlit liquid crystal screen for controlling all the functions.
- **Universal Indoor Unit:** the same indoor unit can be combined with either the Mono-Split outdoor units of the SK range or the Multi-Split outdoor units of the MKM range.
- Adapter for the gas refrigerating line, supplied with indoor units SK360W and SK500W for use with outdoor units MKM only.
- Ultra Low Noise function.
- **General Features:**
  - Operation Modes: Cooling, Heating, Dehumidification, Automatic and Fan only.
  - Microprocessor control.

- Auxiliary emergency control (AUTO button in the indoor unit).
- Front panel of indoor unit with liquid crystal display and leds indicating the operating mode.
- Timer for programming switch-off and/or switch-on.
- 3 Sleep programs.
- Auto-restart function.
- Self-diagnostics function.
- Flared refrigerant connections.
- Easy installation and maintenance.
- **Low Cooling Function:** cooling operation with outdoor temperatures down to -15°C.
- **Low Heating Function:** heating operation with outdoor temperatures down to -20°C.

can be done by Local Wi-Fi (Short Distance Control), otherwise through Cloud System with a Wireless Router connected to the internet (Long Distance Control).

- **WRCA:** wired panel with liquid crystal display and Soft-Touch keys. Using this accessory, it's possible to

control not only the traditional system functions but also a weekly timer with up to 8 daily time bands. **The two accessories, WRCA and Wi-Fi KIT, are mutually compatible and so they can be connected to the same indoor unit simultaneously.**

## Technical Data

Indoor Units				SK260W	SK360W	SK500W	SK700W
Outdoor Units				SK260	SK360	SK500	SK700
Cooling Capacity	Nominal (Min-Max)	kW		2,6 (0,6-3,2)	3,5 (0,6-4,0)	5,3 (1,0-6,3)	7,0 (2,0-8,6)
Cooling Power Input	Nominal (Min-Max)	kW		0,6 (0,12-1,1)	0,9 (0,12-1,4)	1,51 (0,4-2,45)	2,0 (0,45-3,2)
Cooling Current Input		A		2,7	4,0	8,75	8,90
Moisture Removed		l/h		0,8	1,4	1,8	2,5
Seasonal Efficiency	Energy Efficiency Class	(1)	-	A+++	A++	A++	A++
	SEER		-	8,50	8,0	6,4	6,3
	Pdesignnc		kW	2,6	3,5	5,3	7,0
	Annual Power Consumption		kWh / annum	107	153	290	389

Heating Capacity	Nominal (Min-Max)	kW		3,0 (0,6-4,0)	4,0 (0,6-5,0)	5,4 (1,0-6,8)	7,3 (1,9-9,0)
Heating Power Input	Nominal (Min-Max)	kW		0,65 (0,12-1,6)	1,0 (0,12-1,7)	1,45 (0,4-2,5)	1,96 (0,38-3,2)
Heating Current Input		A		3,2	4,5	8,54	9,63
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)	-	A+++	A++	A+	A+
	SCOP		-	5,1	4,7	4,0	4,0
	Pdesignnh		kW	2,8	3,5	5,4	7,0
	Annual Power Consumption		kWh / annum	769	1043	1890	2450

Refrigerant Gas	Type / GWP			R410A / 2088kgCO <sub>2</sub> eq			
Refrigerant Charge	kg			1,2	1,3	1,6	2,3
EER	(2)	W/W		4,33	3,89	3,50	3,50
COP	(2)	W/W		4,62	4,00	3,72	3,72
Rated Power Input	(3)	kW		1,6	1,7	2,5	3,2
Rated Current Input	(3)	A		7,1	8,0	14,0	14,20

Indoor Units							
Air flow rate	Turbo / Quiet	m <sup>3</sup> /h		650/350	750/350	950/480	1200/780
Sound Power	Turbo / Quiet	dB(A)		55/38	55/38	60/46	65/49
Sound Pressure	Turbo / Quiet	(4)	dB(A)	43/26	43/26	46/34	51/37

Outdoor Units							
Air flow rate	Max	m <sup>3</sup> /h		2400	2400	3200	4000
Sound Power	Max	dB(A)		63	63	65	68
Sound Pressure	Max	(4)	dB(A)	54	54	56	58
Compressor		Tip		Twin Rotary DC Inverter			
Refrigerant Connections	Liquid	inch		1/4"	1/4"	1/4"	1/4"
	Gas	inch		3/8"	1/2"	5/8"	5/8"
Refrigerant Lines	Øe Liquid	mm (inch)		6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Øe Gas	mm (inch)		9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")
	Pipe length	Max	m	15	20	25	25
	Height difference	Max	m	10	10	10	10
Power Supply		-		220-240V ~ 50/60Hz			

### Cooling (EN-14511 and EN-14825)

Ambient air temperature 27°C D.B. / 19°C W.B Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m.

### Heating (EN-14511 and EN-14825)

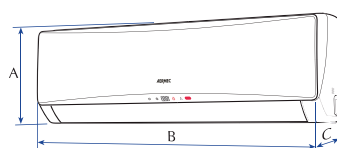
Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B. / 6°C W.B Max speed; Length of Refrigerant Lines 5m.

**Min** = Minimum; **Med** = Medium; **Max** = Maximum.

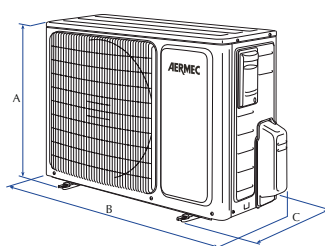
- (1) Data in accordance with Delegated Regulation (EU) No. 626/2011
- (2) EER/COP in accordance with the Standard (EN-14511)
- (3) The Rated Power Input (Rated Current Input) is the Maximum Input Electrical Power (Maximum Current Input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
- (4) Sound Pressure measured in semi anechoic chamber at a distance of 1,5m from the source

## Sizes and Weights

Indoor Units				SK260W	SK360W	SK500W	SK700W
Height	(A)			292	292	319	326
Width	(B)	mm		866	866	1018	1178
Depth	(C)			209	209	230	264
Net Weight		kg		11	11	14	17
Outdoor Units				SK260	SK360	SK500	SK700
Height	(A)			596	596	700	790
Width	(B)	mm		899	899	955	980
Depth	(C)			378	378	396	427
Net Weight		kg		41	43	47,5	65



SK\_W



SK

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# SE

**Reversible Split System Heat Pumps**  
**High Wall Type Monosplit**  
**Cooling Capacity 2,5÷6,5kW**  
**Heating Capacity 2,7÷7,0kW**



Maximum Seasonal  
Energy Efficiency  
(Refer to the Technical Data)

SE\_W



SE



## Characteristics

Split Heat Pump suitable for cooling / heating in the residential environment.  
 New design features and modern forms that are well suited to any style of interior.  
 Five modes of operation (cooling, heating, dehumidification, ventilation Automatic and Only), to guarantee optimum comfort.  
 The environmental comfort is also closely related to the sound level and is especially important in studies and bedrooms. The indoor units SE, ensure comfort throughout the year by distributing air quietly.

- Operation Heat Pump with reverse cycle refrigerator and defrost control
- Fan tangential 4 speed directly selected (Minimum, Average, Maximum, Turbo)
- DC Inverter rotary compressor
- Microprocessor control
- Infrared remote controller with liquid crystal display to control all functions
- Emergency control possibility if the remote controller batteries are flat (Button AUTO on internal unit)

- Front panel display showing operating modes and temperature. The display can be activated or deactivated from the remote controller (LIGHT)
- A handy timer allows you to set up and program the startup and shutdown within a time span of 24 hours, the hours you select, and even in your absence.
- Function Night Comfort (SLEEP)  
 The function adjusts the room temperature by reproducing the curve of body temperature during the night, thus ensuring an adequate physical and mental rest, whose benefits translate into increased productivity and efficiency.
- Extended Ventilation (X-FAN) function prevents the growth of mould in the internal unit during Cooling and Dehumidification Modes
- Intelligent pre-heat function to prevent jets of cold air (Heating Mode)
- Auto-diagnostic function
- Auto-Restart function after a power cut
- External unit defrost function

- External unit with condensate connection
- Cleanable air filter
- Horizontally adjustable air discharge louvers
- Motorised deflector louvers controlled by the remote controller to vertically adjust the discharge air, with 5 fixed positions or floating (SWING)
- Flare type refrigerant connections
- Simple installation and maintenance

## Technical data

Internal Unit			SE250W	SE350W	SE500W	SE700W
External Unit			SE250	SE350	SE500	SE700
Cooling Capacity	nominal	kW	2,50	3,20	5,27	6,45
	(min÷max)	kW	(0,60-2,80)	(0,60-3,50)	(1,26-6,60)	(2,53-6,80)
Power input	nominal	kW	0,80	1,02	1,62	2,18
	(min÷max)	kW	(0,12-1,30)	(0,12-1,40)	(0,38-2,65)	(0,60-2,65)
Condensate rate		l/h	0,8	1,4	1,8	2,0
Seasonal Energy Efficiency	Energy efficiency class (1)		A <sup>+</sup>	A <sup>++</sup>	A <sup>++</sup>	A <sup>++</sup>
	SEER		5,8	6,1	6,1	6,1
	Pdesignc	kW	2,5	3,2	5,2	6,4
Heating Capacity	nominal	kW	2,75	3,40	5,80	7,00
	(min÷max)	kW	(0,60-3,00)	(0,60-3,80)	(1,12-6,80)	(2,53-7,60)
Power input	nominal	kW	0,78	0,99	1,76	2,22
	(min÷max)	kW	(0,12-1,40)	(0,12-1,50)	(0,35-2,65)	(0,60-2,80)
Seasonal Energy Efficiency (average)	Energy efficiency class (1)		A <sup>+</sup>	A <sup>+</sup>	A <sup>+</sup>	A <sup>+</sup>
	SCOP		4,0	4,0	4,0	4,0
	Pdesignh		2,5	3,2	4,5	5,8
Refrigerant Gas	Type / GWP		R410A / 2088kgCO <sub>2</sub> eq			
Refrigerant Charge	kg		0,70	0,85	1,35	1,80
	EER	(2)	3,12	3,14	3,25	2,96
	COP	(2)	3,53	3,42	3,30	3,15
Power input nominal	(3)	kW	1,4	1,5	2,6	2,8

Internal unit			SE250W	SE350W	SE500W	SE700W
Air flow rate	max/med/min	m <sup>3</sup> /h	400/300/250	400/300/250	780/650/550	800/700/550
Sound power	max/med/min	dB(A)	46/43/40	47/43/40	53/50/45	57/52/49
Sound pressure	/max/med/min	dB(A)	34/31/28	34/31/28	43/37/33	47/42/39

External Unit			SE250	SE350	SE500	SE700
Air flow rate	max	m <sup>3</sup> /h	1600	2200	3200	4000
Sound power	max	dB(A)	60	63	63	68
Sound pressure	max	(4) dB(A)	50	51	56	58
Compressor	type		Rotary DC Inverter			

Refrigerant Connections	Liquid	inch	1/4"	1/4"	1/4"	1/4"
	Gas	inch	3/8"	1/2"	1/2"	5/8"
Refrigerant Lines	Liquid	mm / inch	6,35 / 1/4"	6,35 / 1/4"	6,35 / 1/4"	6,35 / 1/4"
	Gas	mm / inch	9,52 / 3/8"	12,7 / 1/2"	12,7 / 1/2"	15,9 / 5/8"
	pipng length	max m	15	20	25	25
	drop	max m	10	10	10	10
Power supply	V ~ Hz		220-240V~50Hz			

### Cooling (EN-14511 e EN-14825)

Ambient air temperature 27°C b.s./ 19 b.u.; External air temperature 35°C; Max speed; Refrigerant line length 5m

### Heating (EN-14511 e EN-14825)

Ambient air temperature 20°C b.s.; External air temperature 7°C b.s./ 6°C b.u.; Max speed; Refrigerant line length 5m

**min** = minimum speed; **max** = maxim speed

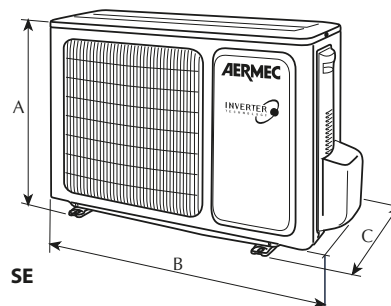
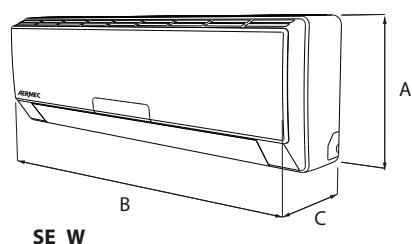
(1) In accordance with Standard EN-14511 e EN-14825

(2) EER/COP in accordance with (EN-14511), declared only for the purpose of tax deductions into force upon completion of this publication

(3) The rated power input is the maximum electrical power absorbed by the system, according to the legislation EN-60335 - 1 e EN-60335 - 2 - 40

(4) Sound pressure measured at 1m distance from front in semi-anechoic chamber.

## Dimensional and Weight



			SE250W	SE350W	SE500W	SE700W	SE250	SE350	SE500	SE700
Height	A	mm	265	265	298	315	540	596	700	790
Width	B	mm	790	790	940	1007	776	842	963	1000
Depth	C	mm	174	174	200	219	320	320	396	427
Weight		kg	8.5	8.5	12	15	27	31	45	55

# SC

**HFC**  
Refrigerant

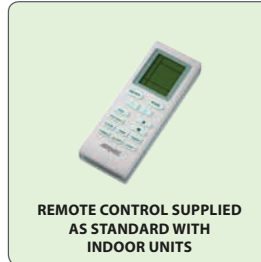
**R410A**

**INVERTER**  
TECHNOLOGY

**A**

Maximum Seasonal  
Energy Efficiency  
(Refer to the Technical Data)

**Reversible Split System Heat Pumps**  
**Column Monosplit**  
**Cooling Capacity 12,0kW**  
**Heating Capacity 13,6kW**



REMOTE CONTROL SUPPLIED  
AS STANDARD WITH  
INDOOR UNITS



SC1200



SC1200V

## Characteristics

A monosplit heat pump designed for Cooling/Heating large environments.

Vertical indoor unit, easy to install on the floor. The air is expelled from the upper frontal portion of the indoor unit, and is drawn in laterally in order to avoid any form of bypass.

Five operating modes (Cooling, Heating, Dehumidification, Automatic and Fan Only), in order to ensure maximum comfort under any conditions; automatic programs designed specifically for different installation locations are also available (residential, office, restaurant, etc.)

- Heat pump functioning with reverse cooling cycle and defrost control
- Centrifuge fan with 4 speed settings (Minimum, Medium, Maximum, and Turbo)
- Rotary DC Inverter compressor
- Microprocessor control

- Infrared remote control with liquid crystal screen for controlling all the functions
- Convenient control panel on-board the machine; the control panel even features a display with various icons, which allows the user to view information regarding the unit's functionality
- The practical timer function allows the user to set and program the desired start-up and shut-down times within a span of 24 hours, even when the user is absent.
- Night-time Wellness function (SLEEP) This function regulates the ambient temperature based on the curve of the body's temperature throughout the night, thus ensuring a restful night's sleep, for greater productivity and efficiency during the day.
- The Prolonged Ventilation Function (X-FAN) is used to prevent the formation of mould in the indoor unit during Cooling and Dehumidification
- Smart preheat function to avoid jets of cold air (Heating Mode)
- Self-diagnostics function

- Auto-Restart function in the event of a sudden power failure
- Outdoor unit defrost function
- Outdoor unit equipped with a condensate discharge connection
- Regenerable air filter
- Dual motorised fins, which can be controlled using the remote handset in order to adjust the direction of the airflow both vertically and horizontally, with 5 fixed or floating positions (SWING)
- Refrigerant lines with flared ends
- Easy installation and maintenance.

## Technical data

Indoor Units			SC1200V
Outdoor Units			SC1200
Cooling Capacity	Nominal (Min-Max)	W	12000 (3000 - 13000)
Input Power	Nominal (Min-Max)	W	4000 (660 - 5400)
Input Current		A	6,0
Moisture Removed		l/h	5
Seasonal Efficiency	Energy Efficiency Class	(1)	<b>A</b>
	SEER		5,1
	Pdesignc	kW	12,0
	Annual Power Consumption	kWh/year	824
Heating Capacity	Nominal (Min-Max)	W	13600 (3400 - 14000)
Input Power	Nominal (Min-Max)	W	4200 (700 - 4400)
Input Current		A	6,5
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)	<b>A</b>
	SCOP		3,8
	Pdesignh	kW	11,0
	Annual Power Consumption	kWh/year	4053
Refrigerant Gas		Type / GWP	R410A / 2088kgCO2eq
Refrigerant Charge		kg	3,5
EER	(2)	W/W	3,00
COP	(2)	W/W	3,24
Nominal Input Power	(3)	W	5400
Nominal Input Current	(3)	A	9,5
Indoor Units			SC1200V
Air flow rate	Turbo/Max/Med/Min	m³/h	1850/1800/1700/1530
Sound Power	Turbo/Max/Med/Min	dB(A)	63/61/58/56
Sound Pressure	Turbo/Max/Med/Min	dB(A)	52/50/48/45
Outdoor Units			SC1200
Air flow rate	Max	m³/h	2000
Sound Power	Max	dB(A)	70
Sound Pressure	Max	(4) dB(A)	63
Compressor		Type	DC Rotary Inverter
Chiller Connections	Liquid	inch	3/8"
	Gas	inch	5/8"
Chiller Lines	Øe Liquid	mm (inch)	9,52 (3/8")
	Øe Gas	mm (inch)	15,9 (5/8")
	Pipe length	Max m	25
	Height difference	Max m	10
Power Supply	Indoor Unit		220-240V~50Hz/60Hz
	Outdoor Unit		380-415V 3N~50Hz/60Hz

### Cooling (EN-14511 and EN-14825)

Ambient air temperature 27°C D.B. / 19°C W.B. Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m

### Heating (EN-14511 and EN-14825)

Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B. / 6°C W.B. Max speed; Length of Refrigerant Lines 5m

**Min** = Minimum; **Med** = Medium; **Max** = Maximum

(1) Data in accordance with Delegated Regulation (EU) No. 626/2011

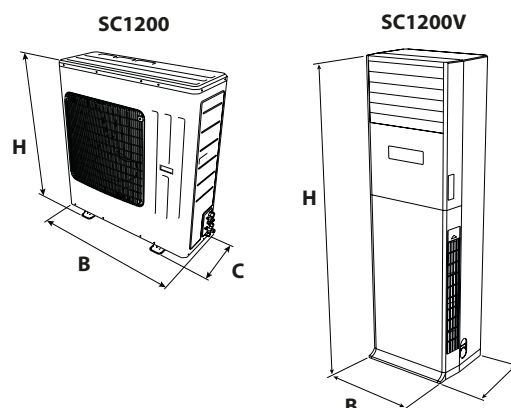
(2) EER/COP in accordance with the Standard (EN-14511), only declared for the purposes of the tax deductions in force at the time of this publication

(3) The *Nominal Input Power (Nominal Input Current)* is the *Maximum Input Electrical Power (Maximum Input Current)* from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40

(4) *Sound Pressure* measured in a semi anechoic chamber at a distance of 1,5m from the front of the unit

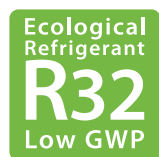
## Sizes and weights

			SC1200	SC1200V
Height	A	mm	1107	1870
Width	B	mm	1086	580
Depth	C	mm	440	400
Weight		kg	89	58



Code: SSCUY01 / 1701





Maximum Seasonal  
Energy Efficiency  
(See the technical data)



## Features

### General Characteristics:

- **FK**
- Packaged Unit available in 2 sizes.
- Packaged Unit with reduced dimensions
- Packed *Plug & Play* unit equipped with power supply with *Schuko* plug.
- *Rotary DC Inverter* compressor.
- Centrifugal Fan Inner Side.
- Axial Fan Outer Side.
- Very quiet operation.
- Motorised vertical fins for optimal airflow control.
- Adjustable horizontal fins.
- Air filter easy to remove and clean.
- Clean Filter Signal function.
- Front Control Panel with LED display and indicator lights to control all functions.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- The fan comes with three speeds, which can be selected with the FAN button.
- Operating mode: Heating, Dehumidification and Fan Only.
- Microprocessor control
- Timer for programming switch-off or switch-on.
- Auto-restart function.
- SWING function: allows you to activate the continuous oscillation of the vertical fins.
- SLEEP Night-time Comfort Program.
- Self-diagnosis function
- Easy installation and maintenance
- Condensate discharge tub included.

## Technical data

Packaged Unit			FK260	FK360
Cooling Capacity	Nominal	kW	2,70	3,65
Input Power	Nominal	kW	0,78	1,03
Input Current	Nominal	A	3,5	4,6
Moisture Removed		l/h	1,00	1,60
Seasonal Efficiency	Energy Efficiency Class	(1)	A	A
	SEER		5,2	5,4
	Pdesignc	kW	2,7	3,7
	Annual Power Consumption	kWh/annum	182	240
Refrigerant Gas			R32 / 675 kgCO <sub>2</sub> eq.	
Filling coolant gas		kg	0,51	0,63
EER	(2)		3,45	3,54
Nominal Input Power	(3)	kW	1,10	1,30
Nominal Input Current	(3)	A	5,5	6,5
<b>Inner side</b>				
Fan		Type	Centrifugal	Centrifugal
Air flow rate	Min / Med / Max	m <sup>3</sup> /h	320 / 360 / 400	380 / 430 / 480
Sound Pressure	Min / Med / Max	(4) dB(A)	46 / 48 / 50	46 / 48 / 50
Sound Power	Min / Med / Max	dB(A)	55 / 57 / 59	55 / 57 / 59
<b>Outer side</b>				
Protection Rating			IPX4	IPX4
Compressor		Type	Rotary	Rotary
Fan		Type	Axial	Axial
Air flow rate	Max	m <sup>3</sup> /h	800	1200
Sound Pressure	Min / Med / Max	(4) dB(A)	52 / 54 / 56	52 / 54 / 56
Sound Power	Min / Med / Max	dB(A)	61 / 63 / 65	61 / 63 / 65
Power Supply			220-240V ~ 50Hz	

### Cooling (EN-14511 and EN-14825)

Room air temperature 27°C D.B. / 19°C W.B. Outside air temperature 35°C; Max. speed

**Min** = Minimum; **Med** = Medium; **Max** = Maximum

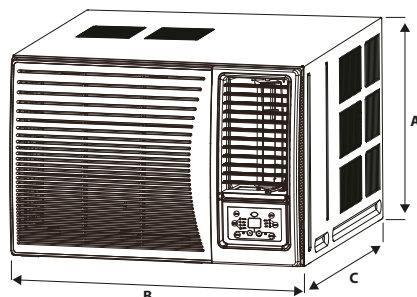
(1) Data in accordance with Delegated Regulation (EU) No. 626/2011.

(2) EER In accordance with standard (EN-14511).

(3) The *Nominal Input Power (Nominal Input Current)* is the *Maximum Input Electrical Power (Maximum Input Current)* from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40.

(4) *Sound Pressure* measured in a semi anechoic chamber at a distance of 1.5m from the front of the unit.

## Dimensions and Weights



Unit dimensions			FK260	FK360
Height	(A)	mm	375	428
Width	(B)	mm	560	660
Depth	(C)	mm	710	700
Net weight		kg	43	50
<b>Package Dimensions</b>				
Package Height		mm	425	505
Package Width		mm	623	739
Package Depth		mm	806	793
Gross weight		kg	47	54

HFC  
Refrigerant

R410A

INVERTER  
TECHNOLOGY

A<sup>+</sup>

Maximum Seasonal  
Energy Efficiency  
(Refer to the Technical Data)



Control Panel



Folding grilles

- **VERTICAL INSTALLATION**
- **IDEAL SOLUTION FOR LOCAL RESIDENTIAL AND COMMERCIAL USE**
- **ENOUGH A WALL WHERE MAKE TWO HOLES**
- **LOW ELECTRICAL CONSUMPTION**

#### Features

CMP23I is the Aermec room air conditioner that needs no outdoor unit, simply make two 162mm holes in the perimeter wall, to allow the air conditioner exchanging heat with the outdoor environment.

CMP23I is a double duct monobloc conditioner, extremely thin, with its depth of only 16 cm, and with elegant design that makes it suitable for all types of rooms.

The absence of an outdoor unit makes it possible to install CMP23I in all cases where architectural constraints prevent the installation of a split air conditioner.

CMP23I installation is extremely simple, even the flow and suction grids can be fitted from the inside, once the two holes in the perimeter wall have been made.

The New BLDC Inverter technology (Brushless Direct Current), for compressor and fans, reduces energy consumption, controls with precision performance and air flow for improved room comfort and finally achieves exceptional sound pressure values. The Inverter technology allows achieving the energy efficiency class A+ when cooling and at partial loads power consumption falls below 300W.

The CMP23I is equipped with a touch control panel installed on the unit, but is also supplied with a handy-sized remote control that can be fixed to the unit's panel thanks to its built-in magnet.

From the control panel you can exclude the Heating mode, transforming the CMP23I in a Cooling Only unit, avoiding the creation of the condensate drain necessary, instead, in winter operation to dispose of the water generated during the defrost cycle. In this regard, to facilitate this drain, the condensate collection tray is heated by the cooling circuit to avoid blockages related to the presence of ice during the winter season.

Technical Data

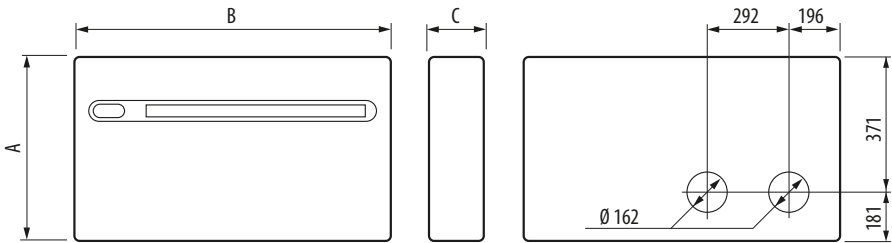
<b>CMP</b>			<b>23I</b>
<b>Power supply</b>			230V~50Hz
<b>Cooling performance</b>			
Cooling Capacity	(1)	kW	2,35
Cooling Power Input	(1)	kW	0,73
EER			3,22
Energy Efficiency Class	(2)		A+
Annual Power Consumption		kW/h	425
Moisture Removed		l	1,1
<b>Heating performance</b>			
Heating Capacity	(3)	kW	2,36
Cooling Power Input	(3)	kW	0,72
COP			3,28
Energy Efficiency Class	(2)		A
<b>Compressor</b>			
Compressor		n°	1
<b>Power Consumption min.</b>		kW	0,3
Circuit		n°	1
Refrigerant		Type/GWP	R410A / 2088kgCO2eq
<b>Fans</b>			
Fan		Type/n°	centrifugal/1
Spedd. indoor/outdoor		n°	3
Air flow rate spedd. max indoor/outside		m³/h	400/480
Air flow rate spedd. average indoor/outside		m³/h	320/390
Air flow rate spedd. min indoor/outside		m³/h	270/340
<b>Diameter holes in the wall</b>			
Diameter holes in the wall		Ø	162
Interasse fori a parete		Ø	293
<b>Sound data</b>			
Sound power level max	(4)	dB(A)	58
Sound pressure level min./max.	(5)	dB(A)	36 / 46

<b>Range of operation</b>		Room temperature		Outside air temperature
Cooling mode	(1) °C	27°C D.B. / 19°C W.B.		35°C D.B. / 24°C W.B.
Heating mode	(1) °C	20°C D.B. / 15°C W.B.		7°C D.B. / 6°C W.B.

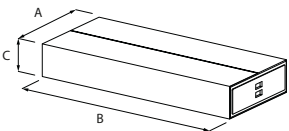
- Dati (14511:2013)**
- (1) Ambient air temperature b.s. 27°C / b.u. 19°C, Outside air temperature b.s. 35°C / b.u. 24°C (EN 14511)
- (2) EEC Efficiency Energy Class 626/2011
- (3) Ambient air temperature b.s. 20°C / b.u. 15°C, Outside air temperature b.s. 7°C / b.u. 6°C (EN 14511)
- (3) Water evaporator 23°C/18°C, External air 35°C
- (4) Sound Pressure level 1,5 m front distance
- (5) Inside Sound pressure measured in a semi anechoic chamber

Dimension (mm)

<b>Mod COMPACT</b>		<b>23</b>	
Height	A	(mm)	555
Larghezza	B	(mm)	1030
Depth	C	(mm)	170
Weight		(kg)	48
<b>Dimension PACKAGING</b>			
A/B/C		(mm)	660/1100/260



PACKAGING (example)



# CK

**Reversible Split System Heat Pumps**  
**Console Type Monosplit**  
**Cooling Capacity from 2,6kW up to 5,2kW**  
**Heating Capacity from 2,75kW up to 5,5kW**

**HFC**  
Refrigerant

**R410A**

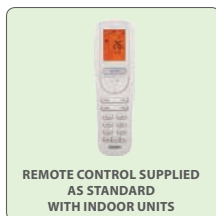
**INVERTER**  
TECHNOLOGY

**A**

Maximum Seasonal  
Energy Efficiency  
(Refer to the Technical Data)



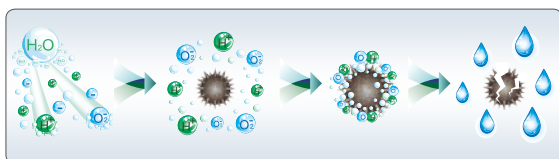
CK\_FS



REMOTE CONTROL SUPPLIED  
AS STANDARD  
WITH INDOOR UNITS



CK



**Air Ioniser (Cold Plasma Generator):** reduces the polluting agents, decomposing their molecules by means of electrical charges and causing the division of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous polluting agents creating substances that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air without any unpleasant odours.

## DUAL AIR DELIVERY (DEFAULT)



Cooling



Heating

## SINGLE AIR DELIVERY



Cooling



Heating

## INTAKE



## Features

### Outdoor Unit:

- **CK**
- Outdoor Unit available in 3 sizes.
- Outdoor Unit fitted with a **Electrical Anti-Freeze Heater (in unit base)** to avoid the formation of ice and encourage the drainage of condensate during heating operation.
- Outdoor unit with **DC inverter rotary compressor**.
- Outdoor unit with **DC inverter fan**.
- Particularly quiet operation.
- Outdoor unit fitted with an **electronic expansion valve**.

### Indoor units:

- **CK\_FS**
- Indoor unit available in 3 sizes.
- Indoor console unit for **vertical installation**.
- Indoor unit with **DC inverter radial fan**.
- The indoor unit fan works at 7 speeds, 5 of which can be directly selected using the "FAN" key, while the other 2 are set by means of a specific key. "QUIET" for extremely quiet operation. "TURBO" for reaching the required temperature as quickly as possible.
- "AUTO" function for continuous speed

variation.

- "Anti-freeze" function for maintaining a minimum temperature of 8°C indoors during the winter months.
- "I FEEL" function: for activating the ambient temperature probe in the remote control, for even greater comfort.
- Indoor unit fitted with **two delivery inlets** for optimum air flow control and greater ambient comfort. One air delivery inlet is located in the top part, and the other is in the bottom part. It is possible, however, to set upper delivery only by means of a specific **microswitch** beneath the front panel.
- Horizontal and vertical motorised fins for optimum air flow control.
- Air filter that's easy to remove and clean.
- Air ioniser (**Cold Plasma Generator**).
- Infrared remote control with backlit liquid crystal display for controlling all the functions.
- Particularly quiet operation.

### General features:

- Operating mode: Cooling, Heating, Dehumidification, Automatic and Fan Only.
- Microprocessor control.
- Auxiliary emergency command

(ON/OFF key on the indoor unit).

- Front panel of indoor unit with LED display and indicator lights.
- Timer for programming switch-off and switch-on.
- 3 Night-time Comfort programmes.
- Auto-restart function.
- Self-diagnosis function.
- Flared refrigerant connections.
- Easy installation and maintenance.
- **Low Cooling function:** cooling operation with outdoor temperatures down to -15°C.
- **Low Heating function:** heating operation with outdoor temperatures down to -20°C.

## Technical Data

Indoor Units				CK260FS	CK360FS	CK500FS
Outdoor Units				CK260	CK360	CK500
Cooling Capacity	Nominal (Min-Max)	kW		2,6 (0,45-3,2)	3,5 (0,6-3,95)	5,2 (1,26-6,6)
Cooling Power Input	Nominal (Min-Max)	kW		0,7 (0,2-1,2)	1,1 (0,22-1,4)	1,65 (0,38-2,45)
Cooling Current Input		A		3,1	4,9	7,3
Moisture Removed		l/h		0,80	1,20	1,80
Seasonal Efficiency	Energy Efficiency Class	(1)		A <sup>++</sup>	A <sup>++</sup>	A <sup>+</sup>
	SEER			6,5	6,3	5,8
	Pdesignnc		kW	2,6	3,5	5,2
	Annual Power Consumption		kWh / annum	140	194	314
Heating Capacity	Nominal (Min-Max)	kW		2,75 (0,45-3,75)	3,65 (0,6-4,7)	5,5 (1,12-6,8)
Heating Power Input	Nominal (Min-Max)	kW		0,74 (0,2-1,55)	1,0 (0,22-1,58)	1,55 (0,35-2,5)
Heating Current Input		A		3,3	4,4	6,9
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class	(1)		A <sup>+</sup>	A <sup>+</sup>	A
	SCOP			4,0	4,0	3,8
	Pdesignnh		kW	2,7	3,5	5,2
	Annual Power Consumption		kWh / annum	945	1225	1916
Refrigerant Gas	Type / GWP			R410A / 2088kgCO <sub>2</sub> eq		
Refrigerant Charge		kg		0,9	1,15	1,3
EER	(2)	W/W		3,71	3,18	3,15
COP	(2)	W/W		3,72	3,65	3,55
Rated Power Input	(3)	kW		1,55	1,58	2,5
Rated Current Input	(3)	A		6,9	7,0	11,1
Indoor Units						
Air flow rate	Turbo / Quiet	m <sup>3</sup> /h		500/250	600/280	700/320
Sound Power	Turbo / Quiet	dB(A)		50/34	52/36	56/40
Sound Pressure	Turbo / Quiet	(4) dB(A)		40/24	42/26	46/30
Outdoor Units						
Air flow rate	Max	m <sup>3</sup> /h		1600	1800	3200
Sound Power	Max	dB (A)		62	63	65
Sound Pressure	Max	(4) dB (A)		52	53	55
Compressor	Type			Rotary DC Inverter		
Refrigerant Connections	Liquid	inch		1/4"	1/4"	1/4"
	Gas	inch		3/8"	3/8"	1/2"
Refrigerant Lines	Øe Liquid	mm (inch)		6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Øe Gas	mm (inch)		9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
	Pipe length	Max	m	15	20	25
	Height difference	Max	m	10	10	10
Power Supply				220-240V ~ 50Hz		

### Cooling (EN-14511 and EN-14825)

Ambient air temperature 27°C D.B. / 19°C W.B.; Outside air temperature 35°C; Max speed; Length of Refrigerant Lines 5m

### Heating (EN-14511 and EN-14825)

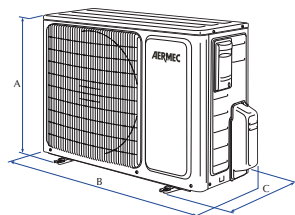
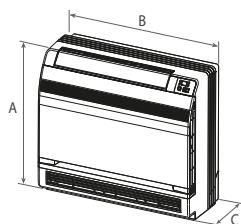
Ambient air temperature 20°C D.B.; Outside air temperature 7°C D.B./6°C W.B.; Max speed; Length of Refrigerant Lines 5m

**Min** = Minimum; **Med** = Medium; **Max** = Maximum.

- (1) Data in accordance with Delegated Regulation (EU) No. 626/2011
- (2) EER/COP in accordance with the Standard (EN-14511)
- (3) The Rated Power Input (Rated Current Input) is the Maximum Input Electrical Power (Maximum Current Input) from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
- (4) Sound Pressure measured in semi anechoic chamber at a distance of 1,5m from the source

## Sizes and Weights

Indoor Unit				CK260FS	CK360FS	CK500FS
Height	(A)			600	600	600
Width	(B)	mm		700	700	700
Depth	(C)			215	215	215
Net weight		kg		15	15	15
Outdoor Unit				CK260	CK360	CK500
Height	(A)			540	540	700
Width	(B)	mm		776	848	955
Depth	(C)			320	320	396
Net weight		kg		32	34	45



Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com



# LCI

HFC  
Refrigerant

R410A

INVERTER  
TECHNOLOGY

A<sup>++</sup>

Maximum Seasonal  
Energy Efficiency  
(Refer to the Technical Data)

**Split Sy Reversible Heat pumps**  
**Monosplit: Cassette - Duct - Floor Ceiling**  
**Cooling Capacity from 2.7 to 16 kW**  
**Heating Capacity from 2.9 to 17 kW**

## Outdoor Units



## Indoor Units

WIRED CONTROL PANEL AND REMOTE CONTROL  
STANDARD ON ALL INDOOR UNITS



Wired control  
panel

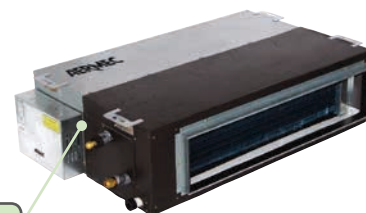


Remote control



LCI\_F

LCI\_D



LCI\_CS  
LCI\_C  
LCI\_CB



**Indoor Units CASSETTES and DUCT  
equipped with Condensate Drain Pump.**

## Features

### Outdoor Units:

- **LCI**
- **LCI**: Single-phase available in 8 sizes.
- **LCI\_T**: Three-phase available in 4 sizes.
- Outdoor Units equipped with **Base Electric Resistance** to prevent the possible formation of ice and favour the disposal of condensation during Heating functioning with extremely stiff Outdoor Temperatures. It can be activated by simply connecting its terminal inside the electric box. In this case you switch from a heating Operational Limit of -10°C to -20°C of Outdoor Temperature.
- Outdoor Units equipped with *DC Inverter Compressor*.
- Outdoor Units equipped with one or two fans with variable-speed *DC Inverter* motor.
- Outdoor Units equipped with *Electronic Expansion Valve*.

### Indoor Units:

- **CASSETTES (Suspended ceiling installation)**
- **LCI\_CS**  
600 x 600  
(coupling with the GL40S accessory is mandatory).

- **LCI\_C**  
840 x 840  
(coupling with the GL40 accessory is mandatory).
- **LCI\_CB**  
910 x 910  
(coupling with the GL40B accessory is mandatory).
- **DUCTED (Horizontal Installation)**  
**LCI\_D**
- **FLOOR CEILING (Wall and/or ceiling installation)**  
**LCI\_F**

**Cassettes Indoor UNITS and DUCT equipped  
with Condensate Drain Pump.**

### General Features:

- R410A Refrigerant gas.
- Air filters with easy extraction and cleaning.
- Easy installation and maintenance.
- Functioning mode: Cooling, Heating, Dehumidification, Automatic and Fan Only.
- Infrared remote control and Wired control panel with liquid crystal display for controlling all functions.

- Possibility to set the Room Temperature Probe in intake of the Indoor Unit or in the Wired control panel.
- Microprocessor control.
- Timer for programming switch-on and/or switch-off.
- Night time well-being program.
- Auto-Restart function: active by default with possibility to disable.
- Self-diagnostics function.
- Flared type refrigerant lines connections.
- Extremely silent functioning.
- Indoor Units equipped with Serial Communication Port RS-485 that can be used to control, via MODBUS Protocol, all System variables.
- **Low Cooling Function:**  
Functioning in Cooling mode with Outdoor Temperatures up to -15°C
- **Low Heating Function:**  
Functioning in Heating mode with Outdoor Temperatures up to -10°C. Limits extended up to -20°C with **Anti-freeze electric resistance activated**.



## CASSETTE Technical Data

Indoor Units		LCI	350CS	500CS	700C	850C	1000C	1000C	1200C	1200C	1400CB*	1400CB*	1600CB*
Outdoor Units		LCI	350	500	700	850	1000	1000T	1200	1200T	1400*	1400T*	1600T*
Cooling Capacity	Nominal		3,50	5,00	7,00	8,30	10,00	10,00	11,00	11,00	14,00	14,00	16,00
	Min		0,90	1,60	2,40	2,60	3,20	3,20	3,30	3,30	6,00	6,00	6,50
	Max		3,90	5,50	8,50	9,20	11,50	11,50	12,00	12,00	14,80	14,80	16,50
Seasonal Efficiency	SEER	W/W	5,6	5,6	6,1	6,1	6,1	6,1	5,6	6,1	-	-	-
	Energy Efficiency Class <sup>(1)</sup>		A+	A+	A++	A++	A++	A++	A+	A++	-	-	-
	Annual Electricity Consumption	kWh/annum	219	313	402	477	574	574	688	632	-	-	-
	Pdesignnc	kW	3,5	5,0	7,0	8,3	10,0	10,0	11,0	11,0	-	-	-
Total Input Power	Nominal		1,09	1,60	2,18	2,67	3,20	3,12	3,90	3,90	4,60	5,15	5,70
	Min		0,30	0,55	0,85	0,85	0,75	0,75	0,53	0,53	1,30	1,30	1,20
	Max		1,40	1,75	2,50	2,70	4,50	4,50	4,65	4,65	5,50	5,50	6,90
Heating Capacity	Nominal		3,80	5,50	8,00	9,20	12,00	12,00	12,50	12,50	16,00	16,00	17,00
	Min		0,90	1,40	2,40	2,40	2,90	2,90	3,60	3,60	5,20	5,20	5,20
	Max		4,10	6,50	9,50	9,90	14,50	14,50	15,00	15,00	18,00	18,00	20,00
Seasonal Efficiency (Temperate Climate)	SCOP	W/W	4,0	3,8	4,0	4,0	4,0	4,0	4,0	4,0	-	-	-
	Energy Efficiency Class <sup>(1)</sup>		A+	A	A+	A+	A+	A+	A+	A+	-	-	-
	Annual Electricity Consumption	kWh/annum	1050	1658	2520	2660	3640	3640	3225	3325	-	-	-
	Pdesignnh	kW	3,0	4,5	7,2	7,6	10,4	10,4	9,5	9,5	-	-	-
Total Input Power	Nominal		1,05	1,58	2,21	2,57	3,50	3,32	3,80	3,80	4,50	4,50	4,70
	Min		0,22	0,50	0,80	0,80	0,60	0,60	0,64	0,64	1,20	1,20	1,20
	Max		1,20	1,90	2,75	2,86	4,80	4,80	4,80	4,80	5,40	5,40	6,90
Refrigerant Gas		Type / GWP	R410A / 2088kgCO <sub>2</sub> eq										
Refrigerant Charge		kg	1,2	1,4	2,2	2,4	3,5	3,5	3,7	3,7	4,0	4,0	5,0
EER <sup>(2)</sup>		W/W	3,21	3,12	3,21	3,11	3,13	3,21	2,82	2,82	3,04	2,72	2,81
COP <sup>(2)</sup>		W/W	3,62	3,48	3,62	3,58	3,43	3,61	3,29	3,29	3,56	3,56	3,62
Rated Input Power <sup>(3)</sup>		kW	1,90	2,50	4,00	4,10	4,85	4,85	4,90	4,90	6,70	6,70	7,40
Rated Input Current <sup>(3)</sup>		A	8,90	11,50	18,40	19,00	22,50	8,70	22,70	8,70	32,20	12,00	13,20
Indoor Units													
Air Flow rate	Turbo / Min	m <sup>3</sup> /h	700/460	760/500	1300/1000	1500/1000	1860/1350	1860/1350	1860/1350	1860/1350	2300/1500	2300/1500	2400/1500
	Turbo / Min	dB(A)	46/36	47/37	47/38	49/40	51/43	51/43	51/43	51/43	53/41	53/41	55/41
Electric power supply		V-Hz	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Outdoor Units													
Air Flow rate		Max	m <sup>3</sup> /h	1800	3200	4000	4000	5100	5100	6600	6600	6600	8800
Sound Power		Max	dB(A)	62	64	65	65	70	70	70	70	70	75
Sound Pressure <sup>(4)</sup>		Max	dB(A)	52	54	55	55	60	60	60	60	60	65
Compressor		Type	-	-	-	-	-	DC-Inverter					
Electric power supply			(5)	(5)	(5)	(5)	(5)	(6)	(5)	(6)	(5)	(6)	(6)
Refrigerator Fittings	Liquid	inch	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Gas	inch	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
	Øe Liquid	mm	6,35	6,35	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52
Refrigerant Lines	Øe Gas	(inch)	(1/4")	(1/4")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")
		mm	9,52	12,7	15,9	15,9	15,9	15,9	15,9	15,9	15,9	15,9	19,05
	Pipe Length	Max	m	20	20	30	30	30	30	50	50	50	50
		level difference	Max	m	15	15	15	15	15	30	30	30	30

\*LCI1400 - LCI1400T - LCI1600T: The Delegate Regulation (EU) No.626/2011 does not apply to Air Conditioners with *Nominal Cooling Capacity* above 12kW, therefore, the labelling requirements and the additional product information are not entered.

### Cooling (EN-14511 and EN-14825)

Environment Air Temperature 27°C d.b. / 19 w.b.; Outdoor Air Temperature 35°C; Max Speed; Refrigerant Lines Length 5 m

### Heating (EN-14511 and EN-14825)

Environment Air Temperature 20°C d.b.; Outdoor Air Temperature 7°C d.b. / 6°C w.b.; Max Speed; Refrigerant Lines Length 5 m

Min = Minimum; Med = Medium; Max = Maximum

- (1) Data in accordance with Delegate Regulation (EU) No.626/2011
- (2) EER/COP in accordance with the Standard (EN-14511), declared only for the purpose of tax deductions in force upon realisation of this publication
- (3) The *Rated Input Power (Rated Input Current)*, is the *Maximum Electric Input Power (Maximum Input Current)* by the system, in accordance with Standard EN 60335-1 and EN-60335-2-40
- (4) *Sound Pressure* measured in Anechoic Chamber at 1.5m from the front
- (5) Electric Power supply: 220-240V ~ 50Hz
- (6) Electric Power supply: 380-415V 3N ~ 50Hz

## Dimensions and Weights

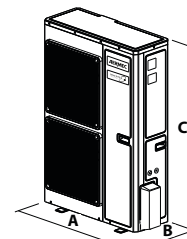
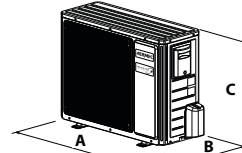
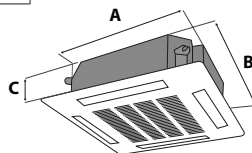
Outdoor unit	LCI350	LCI500	LCI700	LCI850	LCI1000	LCI1000T	LCI1200	LCI1200T	LCI1400	LCI1400T	LCI1600T
Width (A)	850	955	980	980	1105	1105	960	960	960	960	1085
Depth (B) mm	320	395	425	425	440	440	410	410	410	410	425
Height (C)	540	700	790	790	1100	1100	1350	1350	1350	1350	1365
Net Weight kg	34	47	67	71	92	98	95	108	105	114	126

Unità Interna	LCI	350CS	500CS	700C	850C	1000C	1200C	1400CB	1600CB
Width (A)		596	596	840	840	840	840	910	910
Depth (B) mm		596	596	840	840	840	840	910	910
Height (C)		240	240	240	320	320	320	290	290
Net Weight kg		20	20	26	31	31	31	43	43

Grid*	GL40S	GL40	GL40B
Dimensions mm	670 x 670 x 50	950 x 950 x 60	1040 x 1040 x 65
Net Weight kg	3,5	7	8

\*Mandatory accessory



LCI350 - LCI500  
LCI700 - LCI850 - LCI1000 - LCI1000T

LCI1200 - LCI1200T  
LCI1400 - LCI1400T - LCI1600T

## DUCT Technical Data

Indoor Units		LCI	270D	350D	500D	700D	850D	1000D	1000D	1200D	1200D	1400D*	1400D*	1600D*
Outdoor Units		LCI	270	350	500	700	850	1000	1000T	1200	1200T	1400*	1400T*	1600T*
Cooling Capacity	Nominal		2,70	3,50	5,00	7,00	8,30	10,00	10,00	11,50	11,50	14,00	14,00	16,00
	Min		0,80	0,90	1,60	2,20	2,40	3,20	3,20	3,60	3,60	6,00	6,00	6,80
	Max		3,50	3,90	5,80	8,50	8,70	11,50	11,50	12,50	12,50	14,50	14,50	17,50
Seasonal Efficiency	SEER	W/W	5,6	5,6	5,6	6,1	6,1	5,6	5,1	5,6	5,6	-	-	-
	Energy Efficiency Class <sup>(1)</sup>		A+	A+	A+	A++	A++	A+	A	A+	A+	-	-	-
	Annual Electricity Consumption	kWh/annum	169	219	313	402	477	625	687	719	719	-	-	-
	Pdesignc	kW	2,7	3,5	5,0	7,0	8,3	10,0	10,0	11,5	11,5	-	-	-
Total Input Power	Nominal		0,84	1,17	1,55	2,18	2,67	3,20	3,12	4,00	4,00	4,70	5,10	5,60
	Min		0,20	0,20	0,55	0,85	0,85	0,70	0,70	0,65	0,65	1,40	1,40	1,20
	Max		1,28	1,40	1,75	2,50	2,70	4,50	4,50	4,70	4,70	5,60	5,60	6,90
Heating Capacity	Nominal		2,90	3,80	5,60	8,00	9,20	12,00	12,00	13,50	13,50	15,50	15,50	16,50
	Min		0,80	0,90	1,40	2,40	2,40	2,90	2,90	3,90	3,90	5,20	5,20	5,30
	Max		3,80	4,10	6,80	9,50	9,90	14,50	14,50	15,50	15,50	17,00	17,00	18,80
Seasonal Efficiency (Temperate Climate)	SCOP	W/W	3,8	4,0	3,8	4,0	4,0	4,0	4,0	3,8	4,0	-	-	-
	Energy Efficiency Class <sup>(1)</sup>		A	A+	A	A+	A+	A+	A+	A	A+	-	-	-
	Annual Electricity Consumption	kWh/annum	1032	1050	1658	2450	2660	3640	3640	3869	3675	-	-	-
	Pdesignh	kW	2,8	3,0	4,5	7,0	7,6	10,4	10,4	10,5	10,5	-	-	-
Total Input Power	Nominal		0,80	1,05	1,55	2,21	2,57	3,40	3,32	3,90	3,90	4,40	4,50	4,57
	Min		0,20	0,22	0,50	0,80	0,80	0,70	0,70	0,76	0,76	1,30	1,30	1,20
	Max		1,20	1,20	1,90	2,75	2,86	4,60	4,60	4,75	4,75	5,50	5,50	6,90
Refrigerant Gas		Type / GWP	R410A / 2088kgCO2eq											
Refrigerant Charge		kg	1,2	1,2	1,4	2,2	2,4	3,5	3,5	3,7	3,7	4,0	4,0	5,0
EER <sup>(2)</sup>		W/W	3,21	3,00	3,23	3,21	3,11	3,13	3,21	2,88	2,88	2,98	2,75	2,86
COP <sup>(2)</sup>		W/W	3,61	3,62	3,61	3,62	3,58	3,53	3,61	3,46	3,46	3,52	3,44	3,61
Rated Input Power <sup>(3)</sup>		kW	1,70	1,90	2,50	4,00	4,10	4,75	4,85	4,85	4,90	6,70	6,70	7,40
Rated Input Current <sup>(3)</sup>		A	8,00	8,90	11,50	18,40	19,00	22,00	8,70	22,50	8,90	32,50	12,00	13,20
<b>Indoor Units</b>														
Air Flow rate		Turbo / Min	m³/h	650/400	750/500	1000/650	1400/900	1400/900	2000/1400	2000/1400	2000/1400	2500/1600	2500/1600	2500/1600
Sound Pressure <sup>(4)</sup>		Turbo / Min	dB(A)	36/26	37/28	40/28	47/40	47/40	53/44	53/44	53/44	55/45	55/45	57/49
Useful Static Pressure		Nominale	Pa	25	25	25	25	37	37	37	37	50	50	50
Useful Static Pressure		Min - Max	Pa	0 - 30	0 - 30	0 - 30	0 - 75	0 - 75	0 - 100	0 - 100	0 - 100	0 - 125	0 - 125	0 - 150
Electric power supply		V-Hz	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
<b>Outdoor Units</b>														
Air Flow rate		Max	m³/h	1800	1800	3200	4000	4000	5100	5100	6600	6600	6600	8800
Sound Power		Max	dB(A)	62	62	64	65	65	70	70	70	70	70	75
Sound Pressure <sup>(4)</sup>		Max	dB(A)	52	52	54	55	55	60	60	60	60	60	65
Compressor		Type	DC-Inverter											
Electric power supply		V-Hz	(5)	(5)	(5)	(5)	(5)	(5)	(6)	(5)	(6)	(5)	(6)	(6)
Refrigerator Fittings	Liquid	inch	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Gas	inch	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
Refrigerant Lines	Øe Liquid	mm	6,35	6,35	6,35	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52	9,52
		(inch)	(1/4")	(1/4")	(1/4")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")
	Øe Gas	mm	9,52	9,52	12,7	15,9	15,9	15,9	15,9	15,9	15,9	15,9	15,9	19,05
		(inch)	(3/8")	(3/8")	(1/2")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(3/4")
	Pipe Length	Max	m	20	20	20	30	30	30	30	50	50	50	50
	Level difference	Max	m	15	15	15	15	15	15	15	30	30	30	30

\*LCI1400 - LCI1400T - LCI1600T: The Delegate Regulation (EU) No.626/2011 does not apply to Air Conditioners with *Nominal Cooling Capacity* above 12kW, therefore, the labelling requirements and the additional product information are not entered.

### Cooling (EN-14511 and EN-14825)

Environment Air Temperature 27°C d.b. / 19 w.b.; Outdoor Air Temperature 35°C; Max Speed; Refrigerant Lines Length 5 m

### Heating (EN-14511 and EN-14825)

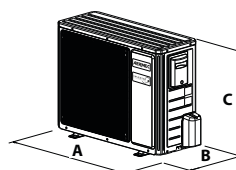
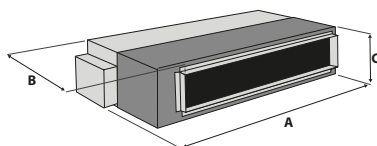
Environment Air Temperature 20°C d.b.; Outdoor Air Temperature 7°C d.b. / 6°C w.b.; Max Speed; Refrigerant Lines Length 5 m

**Min** = Minimum; **Med** = Medium; **Max** = Maximum

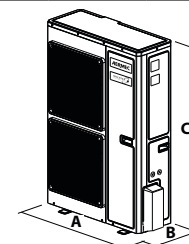
- Data in accordance with Delegate Regulation (EU) No.626/2011
- EER/COP in accordance with the Standard (EN-14511), declared only for the purpose of tax deductions in force upon realisation of this publication
- The *Rated Input Power (Rated Input Current)*, is the *Maximum Electric Input Power (Maximum Input Current)* by the system, in accordance with Standard EN 60335-1 and EN-60335-2-40
- Sound Pressure* measured in Anechoic Chamber at 1.5m from the front
- Electric Power supply: 220-240V ~ 50Hz
- Electric Power supply: 380-415V 3N ~ 50Hz

## Dimensions and Weights

Outdoor unit	LCI270	LCI350	LCI500	LCI700	LCI850	LCI1000	LCI1000T	LCI1200	LCI1200T	LCI1400	LCI1400T	LCI1600T
Width (A)	850	850	955	980	980	1105	1105	960	960	960	960	1085
Depth (B) mm	320	320	395	425	425	440	440	410	410	410	410	425
Height (C)	540	540	700	790	790	1100	1100	1350	1350	1350	1350	1365
Net Weight kg	34	34	47	67	71	92	98	95	108	105	114	126
Unità Interna	LCI270D	LCI350D	LCI500D	LCI700D	LCI850D	LCI1000D		LCI1200D		LCI1400D		LCI1600D
Width (A)	925	1035	1035	1280	1280	1225		1225		1340		1340
Depth (B) mm	665	720	720	560	560	775		775		750		750
Height (C)	250	265	265	270	270	290		290		350		350
Net Weight kg	27	33	33	34	34	46		46		56		57



LCI270 - LCI350 - LCI500  
LCI700 - LCI850 - LCI1000 - LCI1000T



LCI1200 - LCI1200T  
LCI1400 - LCI1400T - LCI1600T

## FLOOR CEILING Technical Data

Indoor Units		LCI	270F	350F	500F	700F	850F	1000F	1000F	1200F	1200F	1400F*	1400F*	1600F*
Outdoor Units		LCI	270	350	500	700	850	10000	1000T	1200	1200T	1400*	1400T*	1600T*
Cooling Capacity	Nominal		2.70	3.50	5.00	7.00	8.50	10.00	10.00	11.50	11.50	14.00	14.00	16.00
	Min		0.80	0.90	1.60	2.40	2.60	3.20	3.20	3.60	3.60	6.00	6.00	6.35
	Max		3.40	3.90	5.80	8.20	9.20	11.50	11.50	12.50	12.50	14.80	14.80	16.50
Seasonal Efficiency	SEER	W/W	6.1	6.1	6.1	5.6	6.1	6.1	6.1	6.1	5.6	-	-	-
	Energy Efficiency Class <sup>(1)</sup>	-	A++	A++	A++	A+	A++	A++	A++	A++	A+	-	-	-
	Annual Electricity Consumption	kWh/annum	155	201	287	438	488	574	574	660	719	-	-	-
Total Input Power	Pdesignc	kW	2.7	3.5	5.0	7.0	8.5	10.0	10.0	11.5	11.5	-	-	-
	Nominal		0.84	1.09	1.55	2.18	2.67	3.20	3.12	3.90	3.90	4.80	5.00	5.75
	Min		0.20	0.26	0.55	0.85	0.85	0.80	0.80	0.60	0.60	1.40	1.40	1.20
Heating Capacity	Max		1.28	1.40	1.75	2.50	2.70	4.60	4.60	4.70	4.70	5.60	5.60	6.90
	Nominal		2.90	3.80	5.60	8.00	9.20	12.00	12.00	13.50	13.50	16.00	16.00	17.00
	Min		0.80	0.90	1.40	2.40	2.40	2.90	2.90	3.90	3.90	5.20	5.20	5.50
Seasonal Efficiency (Temperate Climate)	Max		3.70	4.10	6.80	9.00	9.90	14.50	14.50	15.50	15.50	18.00	18.00	20.00
	SCOP	W/W	3.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	-	-	-
	Energy Efficiency Class <sup>(1)</sup>	-	A	A+	A+	A+	A+	A+	A+	A+	A+	-	-	-
Total Input Power	Annual Electricity Consumption	kWh/annum	1069	1050	1575	2450	2660	3640	3640	3675	3675	-	-	-
	Pdesignh	kW	2.9	3.0	4.5	7.0	7.6	10.4	10.4	10.5	10.5	-	-	-
	Nominal		0.80	1.05	1.55	2.21	2.57	3.40	3.32	3.70	3.74	4.30	4.50	4.70
Total Input Power	Min		0.20	0.22	0.50	0.80	0.80	0.65	0.65	0.69	0.69	1.30	1.30	1.20
	Max		1.20	1.20	1.90	2.75	2.86	4.80	4.80	4.80	4.80	5.50	5.50	6.90
Refrigerant Gas		Type / GWP	R410A / 2088kgCO2eq											
Refrigerant Charge		kg	1.2	1.2	1.4	2.2	2.4	3.5	3.5	3.7	3.7	4.0	4.0	5.0
EER <sup>(2)</sup>		W/W	3.21	3.21	3.23	3.21	3.18	3.13	3.21	2.95	2.95	2.92	2.80	2.78
COP <sup>(2)</sup>		W/W	3.61	3.61	3.61	3.62	3.58	3.53	3.61	3.65	3.61	3.72	3.56	3.62
Rated Input Power <sup>(3)</sup>		kW	1.70	1.90	2.50	4.00	4.10	4.85	4.85	4.90	4.90	6.70	6.70	7.40
Rated Input Current <sup>(3)</sup>		A	8.00	8.90	11.50	18.40	19.00	22.50	8.70	22.70	8.70	32.50	12.00	13.20
Indoor Units														
Air Flow rate		Turbo / Min	m³/h	600/400	700/480	1000/700	1200/820	1500/1000	1900/1200	1900/1200	1900/1200	2300/1500	2300/1500	2500/1800
Sound Pressure <sup>(4)</sup>		Turbo / Min	dB(A)	31/24	35/27	44/32	49/40	49/38	54/46	54/46	55/47	56/46	56/46	58/46
Electric power supply		V-Hz	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Outdoor Units														
Air Flow rate		Max	m³/h	1800	1800	3200	4000	4000	5100	5100	6600	6600	6600	8800
Sound Power		Max	dB(A)	62	62	64	65	65	70	70	70	70	70	75
Sound Pressure <sup>(4)</sup>		Max	dB(A)	52	52	54	55	55	60	60	60	60	60	65
Compressor		Type	DC-Inverter											
Electric power supply		V-Hz	(5)	(5)	(5)	(5)	(5)	(5)	(6)	(5)	(6)	(5)	(6)	(6)
Refrigerator Fittings	Liquid	inch	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
	Gas	inch	3/8"	3/8"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"
		mm	6.35	6.35	6.35	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52	9.52
Refrigerant Lines	Ø Liquid	(inch)	(1/4")	(1/4")	(1/4")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")	(3/8")
	Ø Gas	mm	9.52	9.52	12.7	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	19.05
		(inch)	(3/8")	(3/8")	(1/2")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(5/8")	(3/4")
Pipe Length		Max	m	20	20	20	30	30	30	50	50	50	50	50
Level difference		Max	m	15	15	15	15	15	15	30	30	30	30	30

\*LCI1400 - LCI1400T - LCI1600T: The Delegate Regulation (EU) No.626/2011 does not apply to Air Conditioners with *Nominal Cooling Capacity* above 12kW, therefore, the labelling requirements and the additional product information are not entered.

### Cooling (EN-14511 and EN-14825)

Environment Air Temperature 27°C d.b. / 19 w.b.; Outdoor Air Temperature 35°C; Max Speed; Refrigerant Lines Length 5 m

### Heating (EN-14511 and EN-14825)

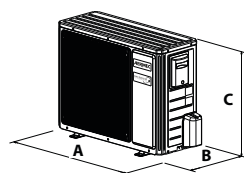
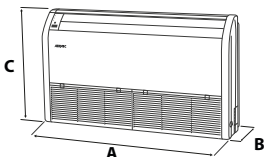
Environment Air Temperature 20°C d.b.; Outdoor Air Temperature 7°C d.b. / 6°C w.b.; Max Speed; Refrigerant Lines Length 5 m

Min = Minimum; Med = Medium; Max = Maximum

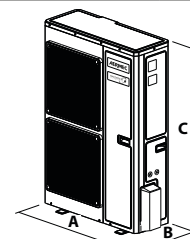
- (1) Data in accordance with Delegate Regulation (EU) No.626/2011
- (2) EER/COP in accordance with the Standard (EN-14511), declared only for the purpose of tax deductions in force upon realisation of this publication
- (3) The *Rated Input Power (Rated Input Current)*, is the *Maximum Electric Input Power (Maximum Input Current)* by the system, in accordance with Standard EN 60335-1 and EN-60335-2-40
- (4) *Sound Pressure* measured in Anechoic Chamber at 1.5m from the front
- (5) Electric Power supply: 220-240V ~ 50Hz
- (6) Electric Power supply: 380-415V 3N ~ 50Hz

## Dimensions and Weights

Outdoor unit	LCI270	LCI350	LCI500	LCI700	LCI850	LCI1000	LCI1000T	LCI1200	LCI1200T	LCI1400	LCI1400T	LCI1600T
Width (A)	850	850	955	980	980	1105	1105	960	960	960	960	1085
Depth (B) mm	320	320	395	425	425	440	440	410	410	410	410	425
Height (C)	540	540	700	790	790	1100	1100	1350	1350	1350	1350	1365
Net Weight kg	34	34	47	67	71	92	98	95	108	105	114	126
Unità Interna	LCI270F	LCI350F	LCI500F	LCI700F	LCI850F	LCI1000F		LCI1200F		LCI1400F		LCI1600F
Width (A)	1220	1220	1220	1220	1420	1420		1420		1700		1700
Depth (B) mm	225	225	225	225	245	245		245		245		245
Height (C)	700	700	700	700	700	700		700		700		700
Net Weight kg	38	39	39	40	48	48		50		59		59



LCI270 - LCI350 - LCI500  
LCI700 - LCI850 - LCI1000 - LCI1000T



LCI1200 - LCI1200T  
LCI1400 - LCI1400T - LCI1600T

Aermec reserves the faculty at any time to implement any and all modifications it deems necessary for product improvement as well as any modification of related technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

**HFC**  
Refrigerant

**R410A**

## Indoor Unit MVA



MVA2240DH - 2800DH

WIRED PANEL (SOFT TOUCH) AND  
REMOTE CONTROL STANDARD ON ALL  
THE INDOOR UNITS



WLRC



WRC

## Outdoor Unit MVAS (STANDARD)



MVAS2241T - 2801T

**Outdoor units equipped with special Heat Transfer  
Coils with Anti-Corrosion Protection  
Golden Fin.**

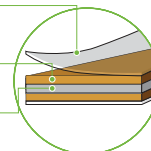
### Anti-Corrosion Protection Golden Fin

The aluminium-manganese (Al-Mn) fins of the coils are coated with a special layer of Epoxy Resin, which gives it a typical golden colour, and a further hydrophilic layer.

Hydrophilic treatment

Anti-Corrosive Treatment  
(Epoxy Resin)

Aluminium-Manganese  
Alloy Fin (Al-Mn)



## CONTROL SYSTEM



WRC  
(Supplied as standard  
for all indoor units)



WRC1



WRCS



USBDC



MODBUSGW

## Features

### Outdoor Units:

#### • MVAS (STANDARD)

- Outdoor Units available in 2 sizes.

### Unità Interne:

#### • DUCT

**MVA\_DH: High Hydraulic Head Duct for ducted horizontal ceiling mounting.**

### General Features:

- Refrigerant Gas R410A.
- Indoor Units fitted with electronic expansion valve on board.
- Wired panel (Soft Touch) WRC, for wall mounting, standard on all Indoor Units.
- WLRC infrared remote control, standard on all Indoor Units.
- DC Inverter compressors were selected to maximise efficiencies, reduce consumption, minimise pickup power input, to have efficient control of the oil return and accurate control of the room temperature and humidity.

- Outdoor units fitted with fans with continuous variable speed inverter motor.
- Microprocessor control.
- Extremely quiet operation.
- Auto-Restart function active by default, can be deactivated.
- Standard condensate control device; allows cooling operation with low outside temperatures.
- Serial communication in CANBUS protocol.
- Easy to install thanks to the non-polarised serial connections and the self-addressing features.

## Accessories

### CONTROL SYSTEMS ACCESSORIES

- **WRC:** WIRED Soft-TOUCH PANEL this Accessory is supplied as standard with all Indoor Units; it is also possible to purchase an **additional WRC Wired Panel** to control a single Indoor Unit or set of Indoor Units (up to a maximum of 16), with the same settings from two separate locations.
- **WRC1:** Wired Panel (Soft Touch) with the same characteristics of the **WRC**, but also equipped with an **Integrated External Contact**.
- **WRCS:** Simplified control wired Panel For Indoor Unit with **built-in External Contact**. This panel is particularly suitable for hotel applications. It can control a

single Indoor Unit or a set of Indoor Units (up to a maximum of 16) with the same settings from two separate locations.

- **MODBUSGW:** This accessory allows you to manage up to 16 MVA systems (with a maximum total of 128 indoor units), making a serial Modbus available for supervision with an external BMS.
- **USBDC:** This kit includes a CANBUS to MODBUS converter and the VRF Debugger software; created to meet the needs of after sales service or authorised technicians who must carry out control and debugging procedures on the MVA range.

## Outdoor Units Technical Data

Outdoor Units		MVAS	2241T	2801T
Cooling Capacity (nominal)		kW	22,4	28,0
Total Power Input (nominal)		kW	7,2	9,8
Input Current (nominal)		A	12,5	17,5
EER		W/W	3,11	2,86
Heating Capacity (nominal)		kW	24,0	30,0
Input power (nominal)		kW	6,5	8,8
Input Current (nominal)		A	11,0	15,7
COP		W/W	3,69	3,41
Nominal input Power (1)		kW	9,6	12,5
Refrigerant		Tipo / GWP	R410A / 2088kgCO <sub>2</sub> eq	
Refrigerant Charge		kg	5,5	7,1
Compressors		DC Inverter	1	1
Nominal Air Flow Rate		m <sup>3</sup> /h	8000	11000
Maximum Total Line Length		m	300	300
Fans		n.	2	2
Sound Pressure (2)		dB (A)	60	62
Refrigerant Connections	Ø liquid	mm (inch)	19,05(3/4")	22,2(7/8")
	Ø gas	mm (inch)	9,52(3/8")	9,52(3/8")
	Type		A saldare	A saldare
Power Supply			380-415V 3N ~ 50Hz	
			380-415V 3N ~ 60Hz	

## Indoor Units Technical Data

Indoor Units		MVA	2240DH	2800DH
Cooling Capacity		kW	22,40	28,00
Heating Capacity		kW	25,00	31,00
Nominal input Power (1)		W	800	900
Nominal Air Flow Rate		m <sup>3</sup> /h	4000	4400
Nominal useful static head (2)		Pa	150	150
Sound Pressure (Min)		dB (A)	-	-
Sound Pressure (Max)		dB (A)	54	55
Refrigerant Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")
	Ø gas	mm (inch)	19,05(3/4")	22,2 (7/8")
Power Supply			220-240V ~ 50Hz	
			208-230V ~ 60Hz	

### Cooling (EN-14511)

Room Air Temperature 27°C b.s. / 19 b.u.; Outside Air Temperature 35°C

### Heating (EN-14511)

Room Air Temperature 20°C b.s.; Outside Air Temperature 7°C b.s. / 6°C b.u.

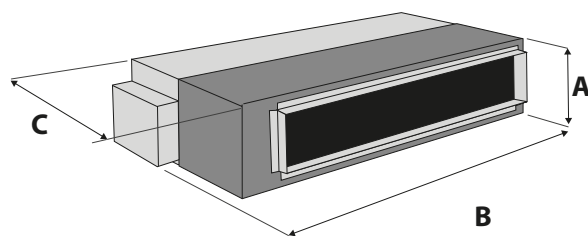
(1) The Nominal Input Power is the Maximum Input Electrical Power of the Indoor Unit, in accordance with the Standards EN-60335-1 and EN-60335-2-40

(2) Sound Pressure measured in Semi-Anechoic Chamber at 1m from the front.

All internal units feature welded connections.

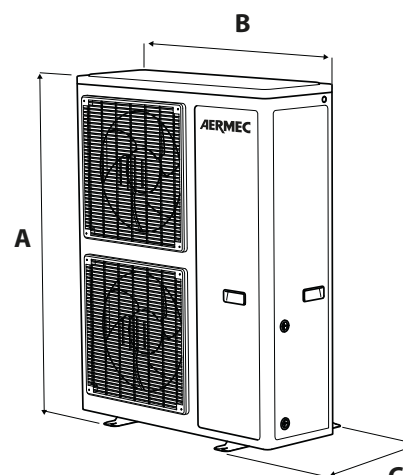
## Dimensions and Weight

### MVA\_DH



MVA_DH	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA2240DH	327	1353	632	115
MVA2800DH	402	1563	706	115

### MVAS



MVAS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAS2241T	1430	940	320	133
MVAS2801T	1615	940	460	166



**Split system reversible heat pumps**  
**Multisplit**  
**Cooling Capacity from 4.1kW to 12.1kW**  
**Heating Capacity from 4.4kW to 13.0kW**

**HFC**  
Refrigerant

**R410A**

**INVERTER**  
TECHNOLOGY

**A++**

Maximum Operating  
Efficiency  
Seasonal Energy  
(See Technical Data)

## UNIVERSAL indoor units\*

**SK\_W**



**SE\_W**



\* To find out which models are Universal, see the table in the "Features" section of the following Product Data Sheet.

## MKM indoor units

**MKM\_D**



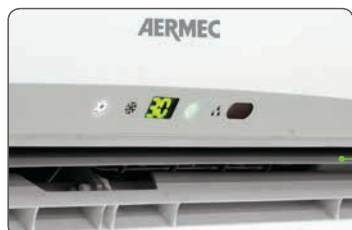
**MKM\_C / MKM\_CS**



**MKM\_F**



**MKM\_FS**



**Extra Horizontal Fin (only for SK\_W Indoor Units)**

- 1 Active in Heating Mode to improve air distribution and to avoid stratification
- 2 Retractable in Cooling Mode

## Outdoor Units



**MKM420 - MKM520**  
**MKM630 - MKM730**  
**MKM840**



**MKM1040 - MKM1250**

### DUAL AIR DELIVERY (DEFAULT)



### SINGLE AIR DELIVERY



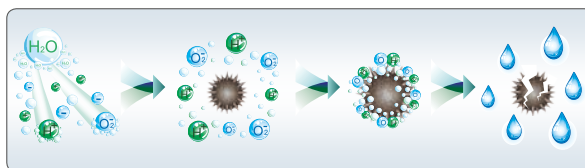
### INTAKE



## CONTROL SYSTEMS

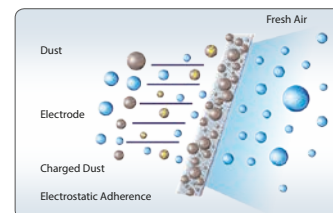


**WRCA**  
Wired Panel  
(Accessory only for the SK\_W models)



**Air Ionizer (Cold Plasma Generator):** this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.

(Only for SK\_W and MKM\_FS Indoor Units).



Operating principles of the **Electrostatic dust filter** (electrically powered).  
(Only for SK\_W Indoor Units).

## Features

### Outdoor Units:

- **DUALSPLIT**
- Outdoor Units MKM420 and MKM520 can be combined with 1 or 2 Indoor Units.
- **TRIALSPLIT**
- Outdoor Units MKM630 and MKM730 can be combined with 2 or 3 Indoor Units.
- **QUADRISPLIT**
- Outdoor Units MKM840 and MKM1040 can be combined with 2, 3 or 4 Indoor Units.
- **PENTASPLIT**
- Outdoor Unit MKM1250 can be combined with 2, 3, 4 or 5 Indoor Units.
- Outdoor Units (MKM420, MKM520, MKM630, MKM730 and MKM840) fitted with **Base Electric Resistor** to prevent any ice formation and to favour disposal of condensation during heating operation.
- Outdoor Units with *DC Inverter Rotary* compressor.
- Outdoor Units with *DC Inverter* fan.
- Extremely quiet operation.
- Outdoor Units fitted with *Electronic Expansion Valve*.

### Indoor Units:

- **SK\_W**
  - **WALL (Wall Installation)**
  - SK200W, SK260W, SK360W, SK500W and SK700W
  - **Universal Indoor Units:** some Indoor Units can be combined with both Multi-Split Outdoor Units from the MKM range and Mono-Split Outdoor Units from the SK range:
- | SK                     | 200W | 260W | 360W | 500W | 700W |
|------------------------|------|------|------|------|------|
| Indoor Units Universal |      | *    | *    | *    | *    |
- Indoor Unit fitted with both a double Horizontal Fin and Vertical Fins, all motorised for optimum control of the air flow in the two directions.
  - The Indoor Unit fan has 7 speeds, 5 of which can be selected using the "FAN" button and 2 that can be set using a special button. "QUIET" for extremely quiet operation; "TURBO" to reach the desired temperature in the least amount of time possible.
  - "AUTO" function for continuous variable speed.
  - "Anti-freeze" function that allows a minimum temperature of 8°C to be maintained in the environment during the winter period.
  - "I FEEL" function: allows activation of the room temperature sensor inside the remote control for improved comfort.
  - Easy to remove and clean air filters.
  - Electrostatic dust filter (electrically powered).
  - Air Ionizer (*Cold Plasma Generator*).
  - Infrared remote handset with backlit liquid crystal display for full control of all appliance functions.
  - Refrigerant Gas Line, provided with Indoor Units SK360W and SK500W only for combination with MKM Outdoor Units.
  - Extremely quiet operation.

- **SE\_W**
- **WALL (Wall Installation)**
- SE200W, SE260W, SE360W, SE500W and SE700W.
- **Universal Indoor Units:** some Indoor Units can be combined with both Multi-Split Outdoor Units from the MKM range and Mono-Split Outdoor Units from the SE range:

SE	200W	260W	360W	500W	700W
Indoor Units Universal				*	*

- Indoor Unit fitted with a motorised Horizontal Fin and Vertical Fins, adjustable for optimum control of the air flow in the two directions.
- The Indoor Unit fan has 4 speeds, 3 of which can be selected using the "FAN" button and 1 that can be set using the special "TURBO" button to reach the desired temperature in the least amount of time possible.
- "AUTO" function for continuous variable speed.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM\_D**
- **DUCTED (Horizontal Installation)**
- MKM25D, MKM35D, MKM50D, MKM60D and MKM70D.
- Max Useful Static Head 10Pa.
- Indoor Unit fitted with Condensate Discharge Pump.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM\_CS**
- **CASSETTE (Suspended Ceiling Installation)**
- 600 x 600
- MKM35CS and MKM50CS (**must be combined with accessory MKMGL40S**).
- Indoor Unit fitted with Condensate Discharge Pump.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM\_C**
- **CASSETTE (Suspended Ceiling Installation)**
- 840 x 840
- MKM35C, MKM50C and MKM70C (**must be combined with accessory MKMGL40**).
- Indoor Unit fitted with Condensate Discharge Pump.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM\_F**
- **FLOOR CEILING (Floor or Ceiling Installation)**
- MKM25F, MKM35F, MKM50F and MKM70F.
- Infrared remote handset with liquid crystal display for full control of all appliance functions.
- Easy to remove and clean air filters.
- Extremely quiet operation.

- **MKM\_FS**
- **CONSOLE (Vertical Installation)**
- MKM25FS, MKM35FS and MKM50FS
- Indoor Unit with *DC Inverter* Radial Fan
- The Indoor Unit fan has 7 speeds, 5 of which can be selected using the "FAN" button and 2 that can be set using a special button. "QUIET" for extremely quiet operation; "TURBO" to reach the desired temperature in the least amount of time possible.
- "AUTO" function for continuous variable speed.
- "Anti-freeze" function that allows a minimum temperature of 8°C to be maintained in the environment during the winter period.
- "I FEEL" function: allows activation of the room temperature sensor inside the remote control for improved comfort.
- Indoor Unit fitted with **two delivery vents** for optimum control of the air flow and greater ambient comfort. One delivery vent is positioned in the upper part and one is positioned in the lower part.
- Using a special *microswitch* located under the front panel, you can set the upper delivery only.
- Motorized horizontal and vertical fins for optimum air flow control.
- Air filter easy to remove and clean.
- Air Ionizer (*Cold Plasma Generator*).
- Infrared remote handset with backlit liquid crystal display for full control of all appliance functions.
- Extremely quiet operation.

### General Features:

- Operating mode: Cooling, Heating, Dehumidification, Automatic and Fan only.
- Microprocessor control.
- Auxiliary emergency command (AUTO button on the Indoor Unit).
- Timer for programming switch-on and/or switch-off.
- Night-time Comfort Program.
- Auto-restart Function.
- Self-diagnostics function.
- Refrigerant lines with flared ends.
- Easy installation and maintenance.
- Systems with *multi-line* refrigerant connections, where every Indoor Unit is connected directly to the Outdoor Unit via dedicated refrigerant lines.
- Extremely quiet operation.
- **Low Cooling Function:** Cooling operation with Outdoor Temperatures up to:

MKM	420	520	630	730	840	1040	1250
-15°C	*	*	*	*	*	*	*
-5°C						*	*

- **Low Heating Function:** Heating operation with Outside Temperatures up to:

MKM	420	520	630	730	840	1040	1250
-20°C	*	*	*	*	*	*	*
-15°C						*	*

## Indoor Unit Features (standard)

Indoor Unit Features (standard)	SK_W	SE_W	MKM_D	MKM_CS	MKM_C	MKM_F	MKM_FS
Infra-red remote control	*	*	*	*	*	*	*
Wired <i>Soft-Touch</i> panel			*	*	*	*	
Electrostatic dust filter	*						
Air Ionizer ( <i>Cold Plasma Generator</i> )	*						*
Condensate Discharge Pump			*	*	*		



## Accessories

### ACCESSORIES FOR MKM\_C / MKM\_CS

- **MKMGL40S: (600x600)**  
Air delivery and recovery grille for indoor cassette-type units. **Accessory required for MKM\_CS.**
- **MKMGL40: (840x840)**  
Air delivery and recovery grille for indoor cassette-type units. **Accessory required for MKM\_C.**

### ACCESSORIES FOR SK\_W

- **WIFIKIT:** Plug & Play module to be installed in the Indoor Unit for Wi-Fi control. Using this Accessory and the special App for iOS and Android devices, available free from Apple Store and Google play, the system can be controlled remotely directly from your Smartphone or Tablet. Remote control can be Direct (Direct Wi-Fi) or via Cloud, using a Wireless Router connected to the Internet.

- **WRCA:** Wired Panel with liquid crystal display and Soft-Touch buttons. Using this Accessory, in addition to the traditional functions of the system, you can also control a weekly timer with a maximum of 8 daily time slots.

**The two Accessories WRCA and WIFIKIT are compatible with one another and can therefore be connected to the same SK range Indoor Unit simultaneously.**

## Available Indoor Unit Models

Rated Cooling Capacity kBtu/h	Indoor Unit Models						
7	SK200W	SE200W	-	-	-	-	-
9	SK260W*	SE260W	MKM25D	-	-	MKM25F	MKM25FS
12	SK360W*	SE360W	MKM35D	MKM35CS	MKM35C	MKM35F	MKM35FS
18	SK500W*	SE500W*	MKM50D	MKM50CS	MKM50C	MKM50F	MKM50FS
21	-	-	MKM60D	-	-	-	-
24	SK700W*	SE700W*	MKM70D	-	MKM70C	MKM70F	-

\***Universal Indoor Units:** Indoor units that can be combined both with MKM Range Multi-Split and SK or SE Range Mono-Split Outdoor Units.

## Allowed Combinations of Indoor Units

**TRIALSPLIT - QUADRISPLIT - PENTASPLIT: IT IS mandatory to install at least 2 indoor units for correct system operation.**  
For further information, please refer to the technical documentation available at [www.aermec.com](http://www.aermec.com)

### MKM420 - MKM520 - MKM630 - MKM730 - MKM840

MKM420 (14kBtu/h)	MKM520 (18kBtu/h)	MKM630 (21kBtu/h)		MKM730 (24kBtu/h)		MKM840 (28kBtu/h)		
2 Units	2 Units	2 Units	3 Units	2 Units	3 Units	2 Units	3 Units	4 Units
7	7	7 + 7	7 + 7 + 7	7 + 7	7 + 7 + 7	7 + 7	7 + 7 + 7	7 + 7 + 7 + 7
9	9	7 + 9	7 + 7 + 9	7 + 9	7 + 7 + 9	7 + 9	7 + 7 + 9	7 + 7 + 7 + 9
12	12	7 + 12	7 + 7 + 12	7 + 12	7 + 7 + 12	7 + 12	7 + 7 + 12	7 + 7 + 7 + 12
7 + 7	7 + 7	7 + 18	7 + 9 + 9	7 + 18	7 + 7 + 18	7 + 18	7 + 7 + 18	7 + 7 + 7 + 18
7 + 9	7 + 9	9 + 9	7 + 9 + 12	9 + 9	7 + 9 + 9	9 + 9	7 + 9 + 9	7 + 7 + 9 + 9
7 + 12	7 + 12	9 + 12	7 + 12 + 12	9 + 12	7 + 9 + 12	9 + 12	7 + 9 + 12	7 + 7 + 9 + 12
9 + 9	7 + 18	9 + 18	9 + 9 + 9	9 + 18	7 + 9 + 18	9 + 18	7 + 9 + 18	7 + 7 + 9 + 18
9 + 12	9 + 9	12 + 12	9 + 9 + 12	12 + 12	7 + 12 + 12	12 + 12	7 + 12 + 12	7 + 7 + 12 + 12
	9 + 12	12 + 18	9 + 12 + 12	12 + 18	9 + 9 + 9	12 + 18	7 + 12 + 18	7 + 9 + 9 + 9
	12 + 12			18 + 18	9 + 9 + 12	18 + 18	9 + 9 + 9	7 + 9 + 9 + 12
					9 + 9 + 18		9 + 9 + 12	7 + 9 + 12 + 12
					9 + 12 + 12		9 + 9 + 18	9 + 9 + 9 + 9
					12 + 12 + 12		9 + 12 + 12	9 + 9 + 9 + 12
							9 + 12 + 18	9 + 9 + 12 + 12
							12 + 12 + 12	

### MKM1040

**MKM1040 (36kBtu/h) up to 4 connectible Indoor Units.**

**Total Rated Cooling Capacity connected to the Outdoor Unit between 50% and 150% of its rated capacity (36kBtu/h).**

### MKM1250

**MKM1250 (42kBtu/h) up to 5 connectible Indoor Units.**

**Total Rated Cooling Capacity connectible to the Outdoor Unit between 50% and 150% of its rated capacity (42kBtu/h).**

## Outdoor Units Technical Data

Outdoor Units			MKM420	MKM520	MKM630	MKM730	MKM840	MKM1040	MKM1250*
Cooling Capacity	Rated (Min-Max)	kW	4,10 (2,10-4,40)	5,20 (2,14-5,80)	6,10 (2,20-7,33)	7,10 (2,29-8,50)	8,00 (2,29-10,26)	10,50 (2,10-11,00)	12,10 (2,10-13,60)
Input Power	Rated (Min-Max)	kW	1,20 (0,55-1,40)	1,45 (0,55-1,56)	1,91 (0,95-2,39)	2,18 (1,10-2,87)	2,54 (1,00-3,58)	3,50 (1,30-4,60)	3,76 (1,30-5,02)
Input Current		A	5,32	6,43	8,47	9,67	11,27	15,42	17,21
Seasonal Efficiency	Energy Efficiency Class (1)		<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A++</b>	<b>A</b>	-
	SEER		6,1	6,3	6,1	6,1	6,1	5,5	-
	Pdesignc	kW	4,1	5,2	6,1	7,1	8,0	10,5	-
	Annual Power Consumption	kWh/annum	235	288	350	407	459	668	-
Heating Capacity	Rated (Min-Max)	kW	4,40 (2,49-5,42)	5,40 (2,58-5,92)	6,50 (3,61-8,50)	8,50 (3,66-8,79)	9,30 (3,66-10,26)	12,00 (2,60-13,00)	13,00 (2,60-14,00)
Input Power	Rated (Min-Max)	kW	1,18 (0,75-1,78)	1,45 (0,78-1,78)	1,73 (0,78-2,87)	2,28 (0,98-2,87)	2,49 (0,88-3,58)	3,75 (1,30-4,14)	3,45 (1,30-5,02)
Input Current		A	5,24	6,43	7,68	10,12	11,05	15,20	15,79
Seasonal Efficiency (Temperate Climate)	Energy Efficiency Class (1)		<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A</b>	-
	SCOP		4,0	4,0	4,0	4,0	4,0	3,8	-
	Pdesignh	kW	3,8	5,0	5,8	7,0	7,0	10,5	-
	Annual Power Consumption	kWh/annum	1330	1750	2030	2450	2450	3876	-
Refrigerant Gas	Type / GWP		R410A / 2088kgCO <sub>2</sub> eq						
Refrigerant Charge		kg	1,4	1,6	2,2	2,2	2,4	4,3	4,8
EER	(2)	W/W	3,42	3,59	3,19	3,26	3,15	3,00	3,22
COP	(2)	W/W	3,73	3,72	3,76	3,73	3,73	3,20	3,77
Nominal Input Power	(3)	kW	1,78	1,78	2,87	2,87	3,58	4,88	5,02
Nominal Input Current	(3)	A	7,90	7,90	12,73	12,73	15,88	21,65	22,97
Outdoor Units									
Air flow rate	Max	m <sup>3</sup> /h	2600	3200	3200	4000	4000	5200	5200
Sound Power	Max	dB(A)	62	62	65	65	65	67	67
Sound Pressure	Max	(4) dB(A)	55	56	56	58	58	57	57
Compressor	Type		Rotary DC Inverter						
Chiller Lines	Total Line Length	Max	m	20	20	60	60	70	80
	Single Line Length	Max	m	10	10	20	20	20	25
	Indoor - Outdoor Height Difference	Max	m	5	5	10	10	10	7,5
	Indoor - Outdoor Height Difference	Max	m	5	5	10	10	15	15
Power Supply			220-240V ~ 50Hz						

All of the technical data refers to the respective reference combinations of Indoor Units.

\* MKM1250 - The European Directive (EU) No 626/2011 does not apply to Air Conditioners with Rated Cooling Capacity greater than 12kW, therefore the labelling and supplementary production information requirements are not inserted.

### Cooling (EN-14511 and EN-14825)

Ambient Air Temperature 27°C D.B. / °C W.B.; Outside Air Temperature 35°C; Max speed; Length of Refrigerant Lines 5m

### Heating (EN-14511 and EN-14825)

Ambient Air Temperature 20°C D.B.; Outside Air Temperature 7°C D.B. / 6°C W.B.; Max speed; Length of Refrigerant Lines 5m

**Min** = Minimum; **Med** = Medium; **Max** = Maximum

- (1) Data in accordance with Delegated Regulation (EU) No. 626/2011
- (2) EER/COP in accordance with the Standard (EN-14511), only declared for the purposes of the tax deductions in force at the time of this publication
- (3) The *Nominal Input Power (Nominal Input Current)* is the *Maximum Input Electrical Power (Maximum Input Current)* from the system, in accordance with the Standards EN-60335-1 and EN-60335-2-40
- (4) *Sound Pressure* measured in a semi anechoic chamber at 1.5 m from the unit

### Adapters provided with the MKM Outdoor Unit

Models	MKM420	MKM520	MKM630	MKM730	MKM840	MKM1040	MKM 1250	Connections mm (inch)	
								Outdoor Unit	Indoor Unit
Quantity	-	1	1	2	2	-	-	9.52 (3/8")	→ 12.7 (1/2")
	-	-	-	-	-	1	2	6.35 (1/4")	→ 9.52 (3/8")
	-	-	-	-	-	1	2	12.7 (1/2")	→ 9.52 (3/8")
	-	-	-	-	-	1	2	12.7 (1/2")	→ 15.9 (5/8")
	-	-	-	-	-	1	1	9.52 (3/8")	→ 6.35 (1/4")
	-	-	-	-	-	1	1	15.9 (5/8")	→ 9.52 (3/8")
	-	-	-	-	-	2	1	9.52 (3/8")	→ 12.7 (1/2")
	-	-	-	-	-	-	1	15.9 (5/8")	→ 12.7 (1/2")

### Adapters provided with the SK\_W Indoor Unit

Models	SK200W	SK260W	SK360W	SK500W	SK700W	Indoor Unit Outdoor Unit	
						Connections mm (inch)	
Quantity	-	-	1	-	-	12.7 (1/2")	→ 9.52 (3/8")
	-	-	-	1	-	15.9 (5/8")	→ 12.7 (1/2")

For further information, consult the Technical Documentation available at [www.aermec.com](http://www.aermec.com)

## Indoor Units Technical Data

### WALL (Wall Installation)

SK_W Indoor Units			SK200W	SK260W	SK360W	SK500W	SK700W
Cooling Capacity	Nominal	kW	2.10	2.60	3.50	5.30	7.00
Heating Capacity	Nominal	kW	2.60	3.20	4.00	5.40	7.30
Nominal Input Power	(5)	W	40	40	40	60	75
Air flow rate	Min / Max	m <sup>3</sup> /h	350 / 650	350 / 650	350 / 750	480 / 950	780 / 1200
Moisture Removed		l/h	1.0	1.0	1.0	2.0	2.5
Sound Power	Min / Max	dB(A)	38 / 55	38 / 55	38 / 55	46 / 60	49 / 65
Sound Pressure	Min / Max	dB(A)	26 / 43	26 / 43	26 / 43	34 / 46	37 / 51

### WALL (Wall Installation)

SE_W Indoor Units			SE200W	SE260W	SE360W	SE500W	SE700W
Cooling Capacity	Nominal	kW	2.10	2.60	3.50	5.28	6.45
Heating Capacity	Nominal	kW	2.60	3.00	4.00	5.80	7.00
Nominal Input Power	(5)	W	55	55	55	55	68
Air flow rate	Min / Max	m <sup>3</sup> /h	350 / 580	300 / 600	300 / 600	550 / 850	550 / 1000
Moisture Removed		l/h	0.6	0.8	1.4	1.8	2.0
Sound Power	Min / Max	dB(A)	38 / 53	48 / 42	42 / 54	45 / 58	49 / 63
Sound Pressure	Min / Max	dB(A)	28 / 41	40 / 54	30 / 42	33 / 45	39 / 51

### Ducted (Horizontal Installation)

MKM_D Indoor Units			MKM25D	MKM35D	MKM50D	MKM60D	MKM70D
Cooling Capacity	Nominal	kW	2.50	3.50	5.00	6.00	7.10
Heating Capacity	Nominal	kW	2.80	3.85	5.50	6.60	8.00
Nominal Input Power	(5)	W	75	65	80	110	110
Air flow rate	Min / Max	m <sup>3</sup> /h	450	500	700	1000	1000
Moisture Removed		l/h	0.8	1.4	1.8	2.0	2.5
Sound Power	Min / Max	dB(A)	41 / 47	42 / 49	43 / 50	44 / 52	44 / 52
Sound Pressure	Min / Max	dB(A)	31 / 37	32 / 39	33 / 41	34 / 42	34 / 42

### Cassette (Suspended Ceiling Installation)

MKM_CS Indoor Units (600x600)			MKM35CS	MKM50CS
Cooling Capacity	Nominal	kW	3.50	4.50
Heating Capacity	Nominal	kW	4.00	5.00
Nominal Input Power	(5)	W	50	50
Air flow rate	Min / Max	m <sup>3</sup> /h	450 / 600	450 / 600
Moisture Removed		l/h	1.4	1.8
Sound Power	Min / Max	dB(A)	52 / 56	52 / 56
Sound Pressure	Min / Max	dB(A)	42 / 46	42 / 46

### Cassette (Suspended Ceiling Installation)

MKM_C Indoor Units (840x840)			MKM35C	MKM50C	MKM70C
Cooling Capacity	Nominal	kW	3.50	5.00	7.10
Heating Capacity	Nominal	kW	3.85	5.50	8.00
Nominal Input Power	(5)	W	70	70	100
Air flow rate	Min / Max	m <sup>3</sup> /h	335 / 400	570 / 680	850 / 1180
Moisture Removed		l/h	1.4	1.8	2.5
Sound Power	Min / Max	dB(A)	43 / 47	43 / 47	45 / 49
Sound Pressure	Min / Max	dB(A)	33 / 37	33 / 37	35 / 39

### Floor Ceiling (Wall or Ceiling Installation)

MKM_F Indoor Units			MKM25F	MKM35F	MKM50F	MKM70F
Cooling Capacity	Nominal	kW	2.50	3.50	5.00	7.10
Heating Capacity	Nominal	kW	2.80	3.85	5.50	8.00
Nominal Input Power	(5)	W	55	55	110	110
Air flow rate	Min / Max	m <sup>3</sup> /h	450 / 650	450 / 650	500 / 950	700 / 1250
Moisture Removed		l/h	0.8	1.4	1.8	2.5
Sound Power	Min / Max	dB(A)	46 / 50	46 / 50	50 / 55	54 / 58
Sound Pressure	Min / Max	dB(A)	36 / 40	36 / 40	40 / 45	44 / 48

### Console (Vertical Installation)

MKM_FS Indoor Units			MKM25FS	MKM35FS	MKM50FS
Cooling Capacity	Nominal	kW	2.60	3.50	5.30
Heating Capacity	Nominal	kW	2.80	3.80	5.80
Nominal Input Power	(5)	W	30	45	55
Air flow rate	Min / Max	m <sup>3</sup> /h	250 / 500	280 / 600	320 / 650
Moisture Removed		l/h	0.8	1.4	1.8
Sound Power	Min / Max	dB(A)	40 / 55	42 / 57	47 / 62
Sound Pressure	Min / Max	dB(A)	25 / 40	27 / 42	32 / 48

(5) The Nominal Input Power (Nominal Input Current) is the Maximum Input Electrical Power (Maximum Input Current) of the Indoor Unit, in accordance with the Standards EN-60335-1 and EN-60335-2-40

## Chiller Connections

### Indoor Unit Chiller Connections

Rated Cooling Capacity kBTu/h		7	9	12	18	21	24
Models		SK200W	SK260W	SK360W	SK500W	-	SK700W
Gas Connection	inch(mm)	3/8"(9,52)	3/8"(9,52)	1/2"(12,7) <sup>(1)</sup>	5/8"(15,9) <sup>(1)</sup>	-	5/8"(15,9)
Liquid Connection	inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	1/4"(6,35)
Models		SE200W	SE260W	SE360W	SE500W	-	SE700W
Gas Connection	inch(mm)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	-	5/8"(15,9)
Liquid Connection	inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	1/4"(6,35)
Models		-	MKM25D	MKM35D	MKM50D	MKM60D	MKM70D
Gas Connection	inch(mm)	-	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	5/8"(15,9)	5/8"(15,9)
Liquid Connection	inch(mm)	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	3/8"(9,52)	3/8"(9,52)
Models		-	-	MKM35CS	MKM50CS	-	-
Gas Connection	inch(mm)	-	-	3/8"(9,52)	1/2"(12,7)	-	-
Liquid Connection	inch(mm)	-	-	1/4"(6,35)	1/4"(6,35)	-	-
Models		-	-	MKM35C	MKM50C	-	MKM70C
Gas Connection	inch(mm)	-	-	3/8"(9,52)	1/2"(12,7)	-	5/8"(15,9)
Liquid Connection	inch(mm)	-	-	1/4"(6,35)	1/4"(6,35)	-	3/8"(9,52)
Models		-	MKM25F	MKM35F	MKM50F	-	MKM70F
Gas Connection	inch(mm)	-	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	-	5/8"(15,9)
Liquid Connection	inch(mm)	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	3/8"(9,52)
Models		-	MKM25FS	MKM35FS	MKM50FS	-	-
Gas Connection	inch(mm)	-	3/8"(9,52)	3/8"(9,52)	1/2"(12,7)	-	-
Liquid Connection	inch(mm)	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	-	-

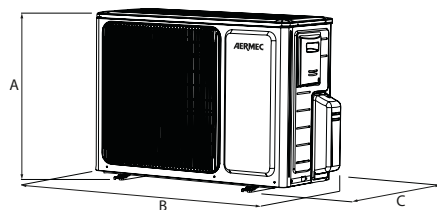
<sup>(1)</sup> Use the Adapter provided with the Indoor Unit.

### Outdoor Unit Chiller Connections

Models	Unit	MKM420	MKM520	MKM630	MKM730	MKM840	MKM1040	MKM 1250
Gas Connection	A inch(mm)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	15,9(5/8")	15,9(5/8")
	B inch(mm)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	12,7(1/2")	12,7(1/2")
	C inch(mm)	-	-	3/8"(9,52)	3/8"(9,52)	3/8"(9,52)	9,52(3/8")	12,7(1/2")
	D inch(mm)	-	-	-	-	3/8"(9,52)	9,52(3/8")	9,52(3/8")
	E inch(mm)	-	-	-	-	-	-	9,52(3/8")
Liquid Connection	A inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	9,52(3/8")	9,52(3/8")
	B inch(mm)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	6,35(1/4")	6,35(1/4")
	C inch(mm)	-	-	1/4"(6,35)	1/4"(6,35)	1/4"(6,35)	6,35(1/4")	6,35(1/4")
	D inch(mm)	-	-	-	-	1/4"(6,35)	6,35(1/4")	6,35(1/4")
	E inch(mm)	-	-	-	-	-	-	6,35(1/4")

## Outdoor Unit Weights and Dimensions

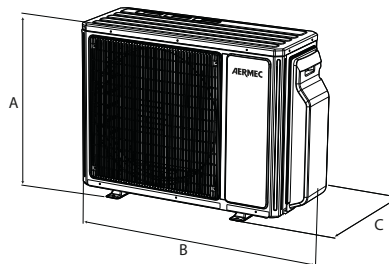
**MKM420**



### OUTDOOR UNIT

	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM420	596	903	378	43

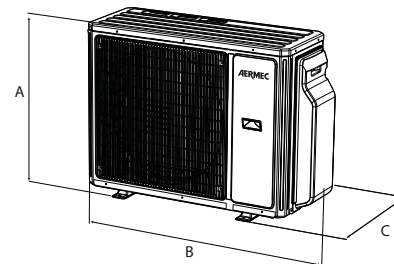
**MKM520 - MKM630**



### OUTDOOR UNIT

	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM520	700	963	396	51
MKM630	700	963	396	62

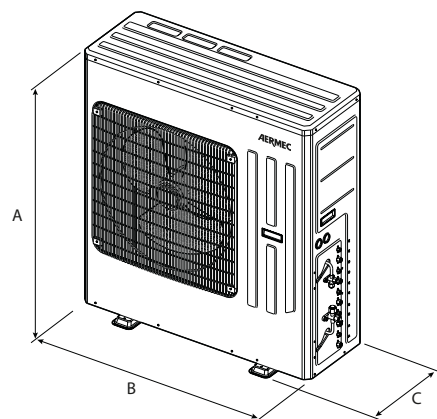
**MKM730 - MKM840**



### OUTDOOR UNIT

	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM730	790	1001	427	68
MKM840	790	1001	427	69

**MKM1040 - MKM1250**

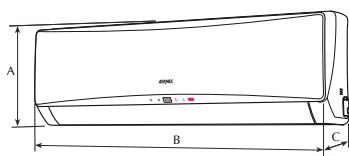


### OUTDOOR UNIT

	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM1040	1103	1087	440	94
MKM1250	1103	1087	440	95

## Indoor Unit Weights and Dimensions

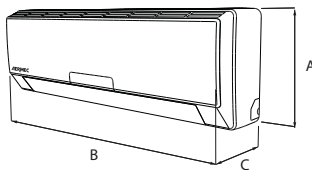
SK\_W



### INDOOR UNIT

SK_W	A (mm)	B (mm)	C (mm)	Weight Net (kg)
SK200W	292	866	209	11
SK260W	292	866	209	11
SK360W	292	866	209	11
SK500W	319	1018	230	14
SK700W	326	1178	264	17

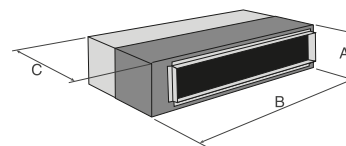
SE\_W



### INDOOR UNIT

SE_W	A (mm)	B (mm)	C (mm)	Weight Net (kg)
SE200W	275	845	180	9
SE260W	275	845	180	9
SE360W	275	845	180	9
SE500W	298	940	200	12
SE700W	315	1007	219	15

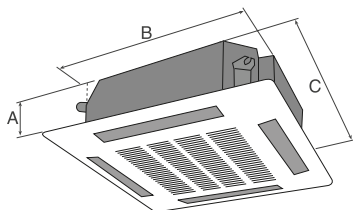
MKM\_D



### INDOOR UNIT

	A (mm)	B (mm)	C (mm)	Weight Net (kg)
<b>MKM_D</b>				
MKM25D	200	782	635	22
MKM35D	200	782	635	23
MKM50D	200	982	635	27
MKM60D	200	1182	635	31
MKM70D	200	1182	635	31

MKM\_C / MKMGL40 - MKM\_CS / MKMGL40S

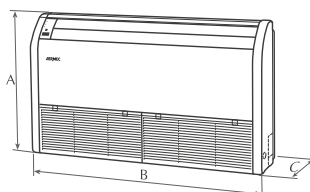


### INDOOR UNIT

MKM_CS MKM_C	A (mm)	B (mm)	C (mm)	Weight Net (kg)
MKM35CS	230	570	570	18
MKM50CS	230	570	570	18
MKMGL40S*	50	650	650	5
MKM35C	190	840	840	25
MKM50C	190	840	840	25
MKM70C	240	840	840	30
MKMGL40*	60	950	950	5

\* Mandatory Accessory

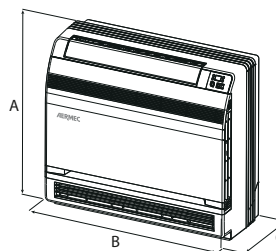
MKM\_F



### INDOOR UNIT

	A (mm)	B (mm)	C (mm)	Weight Net (kg)
<b>MKM_F</b>				
MKM25F	700	1220	225	40
MKM35F	700	1220	225	40
MKM50F	700	1220	225	40
MKM70F	700	1220	225	45

MKM\_FS



### INDOOR UNIT

	A (mm)	B (mm)	C (mm)	Weight Net (kg)
<b>MKM_FS</b>				
MKM25FS	600	700	215	15
MKM35FS	600	700	215	15
MKM50FS	600	700	215	15

# VRF SYSTEM

The VRFs are the direct expansion systems, with variable refrigerant flow.

Unlike the Multisplits, which are characterised by a set flow of refrigerant, these systems allow users to adjust the amount of refrigerant in circulation, according to the actual load required by the indoor units in use.

They range of 10kW to 180kW thanks to their modular configuration, and are available in a heat pump version with heat recovery and domestic hot water production.

These systems guarantee excellent energy efficiency, avoiding wasting energy pointlessly, and are amazingly quiet during operation.



## VRF SYSTEMS

MVA

Reversible heat pump

Air flow-rate (m³/h)	Cooling cap. (kW)	Heating cap. (kW)	Page
-	12,0-180,0	14,0-200,0	518

## MVA

**Reversible Multisplit Heat Pumps  
Variable Refrigerant Flow System (VRF)  
Cooling Capacity from 12,1kW to 246,0kW  
Heating Capacity from 14,0kW to 276,0kW**



**HFC**  
Refrigerant  
**R410A**

### Indoor Units MVA



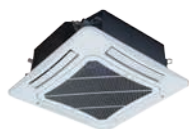
MVA\_W



MVA\_D - MVA\_DH



MVA\_F



MVA\_CS - MVA\_C - MVA\_CB



MVA\_FS



MVA\_C1



MVA\_V

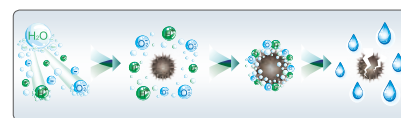
**WIRED PANEL (SOFT TOUCH)  
AND REMOTE CONTROL  
STANDARD ON ALL THE INDOOR UNITS**



WLRC



WRC



#### Air Ionizer

**(Cold Plasma Generator) Only for MVA\_FS Indoor Units**  
this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.

### Outdoor Units MVAS (STANDARD)



MVAS1200S  
MVAS1400S  
MVAS1600S  
MVAS1200T  
MVAS1400T  
MVAS1600T



MVAS2241T  
MVAS2801T  
MVAS3350T



MVAM2240T  
MVAM2800T



MVAM3350T  
MVAM4000T  
MVAM4500T



MVAM5040T  
MVAM5600T  
MVAM6150T

**Outdoor units equipped with  
special Heat Transfer Coils with  
Anti-Corrosion Protection  
Golden Fin.**

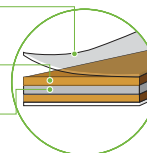
#### Anti-Corrosion Protection Golden Fin

The aluminium-manganese (Al-Mn) fins of the coils are coated with a special layer of Epoxy Resin, which gives it a typical golden colour, and a further hydrophilic layer.

Hydrophilic treatment

Anti-Corrosive Treatment  
(Epoxy Resin)

Aluminium-Manganese  
Alloy Fin (Al-Mn)



### CONTROL SYSTEMS

(available with all Outdoor Units)



MVACC1



WRC  
(standard on all the Indoor Units)



WRC1



MODBUSGW



MVASZC



WRCS



USBDC

### JOINTS (REFNET)

Refnet (Y-Type)



RNY

Refnet (F-Type)



RNF

## Features

### Outdoor Units:

#### • MVAS (STANDARD)

- Outdoor Units available in 9 sizes with Rated Cooling Capacity da 12,1kW a 33,5kW.
- From 1 to 16 connectible Indoor Units (for further details concerning the minimum and maximum number of external units available, refer to the section titled "Refrigerant Connections Example" on the subsequent page).
- Total maximum length of the refrigerant lines up to 300m.
- Outdoor Units MVAS1200S-1400S-1600S and MVAS1200T-1400T-1600T fitted with **Base Electric Resistor** to prevent any ice formation and to favour disposal of condensation during heating operation.

#### • MVAM (MODULAR)

- Outdoor Units Modular available in 8 Base Modules with Rated Cooling Capacity from 22,4kW to 61,50kW.
- From 1 to 80 connectible Indoor Units (for further details concerning the minimum and maximum number of external units available, refer to the section titled "Refrigerant Connections Example" on the subsequent page).
- Total maximum length of the refrigerant lines up to 1000m.
- Modular system: Base Modules that can be combined with one another up to a maximum of 4 for a total of **33 recommended combinations**, with Cooling Capacity from 68,0kW to 246,0kW. Refrigerant connections between Base Modules must be made on installation using specific Y-Joints (Mandatory Accessories RNYM01). A modular system made up of n base modules requires n-1 Y-Joints (RNYM01).
- External unit with ducted air supply, with 0Pa (default) to 82Pa available head pressure selected via dip switch.

- Management optimised over operating time of the compressors under partial loads.
- Emergency operation, in the event of problems with the compressors or fans, allows operation of the system with a reduced number of compressors and/or fans for a limited time.

### Indoor Units:

#### • WALL

**MVA\_W:** Wall for wall mounting.

#### • CASSETTE - 4 Way

Cassette for suspended ceiling installation, subdivided into the following configurations:

**MVA\_CS:** Cassette 600x600 (Mandatory accessory GL40S).

**MVA\_C:** Cassette 840x840 (Mandatory accessory GL40).

**MVA\_CB:** Cassette 910x910 (Mandatory accessory GL40B).

#### • CASSETTE - 1 Way

**MVA\_C1:** Cassette (Mandatory accessory GLC1).

#### • FLOOR CEILING

**MVA\_F:** Floor Ceiling for floor or ceiling installation.

**MVA\_FS:** Console for floor mounting.

Air Ionizer (Cold Plasma Generator).

#### • DUCT

**MVA\_D:** Low Hydraulic Head Duct for horizontal ceiling mounting.

**MVA\_DH:** High Hydraulic Head Duct for ducted horizontal ceiling mounting.

#### • COLUMN

**MVA\_V:** Column for installations in large areas.

### • General Features:

- Refrigerant gas R410A.
- Total Capacity connected to the Outdoor Units between 50% and 135% of the rated capacity of the

selected configuration.

- Indoor Units fitted with electronic expansion valve on board.
- Wired panel (Soft Touch) WRC, for wall mounting, standard on all Indoor Units; can manage a single internal unit, or can be used to manage, with the same settings, a group of internal units (up to a maximum of 16).
- WLRC infrared remote control, standard on all Indoor Units.
- DC Inverter compressors were selected to maximise efficiencies, reduce consumption, minimise pickup power input, to have efficient control of the oil return and accurate control of the room temperature and humidity.
- Outdoor units fitted with fans with continuous variable speed inverter motor.
- Microprocessor control.
- In the MVA system the chiller connections were created using braze welded Y-joints (provided as a mandatory accessory), ensuring flexibility in the installation and full compliance with safety standards, as well as a lower environmental impact due to the absence of leaks.
- Extremely quiet operation.
- Auto-Restart function active by default, can be deactivated.
- Standard condensate control device; allows cooling operation with low outside temperatures.
- Serial communication in CAN Bus protocol.
- Easy to install thanks to the non-polarised serial connections and the self-addressing features.

## Accessories

### JOINTS (REFNET)

- RNYM01:** Y-Joint for refrigerant connection between 2 Outdoor Units in Modular Systems; the accessory is composed of two Y-joints, one for the liquid line and one for the discharge line. This accessory is mandatory for modular systems. **A modular system made up of n base modules requires n-1 Y-joints. Accessory available only for MVAM.**
- RNY:** Accessory made up of two Y-joints, one for the liquid line and one for the gas line.
- RNY11:** Y joint for total power output installed downstream of less than or equal to 20 kW;
- RNY12:** Y joint for total power output installed downstream of more than 20kW but less than or equal to 30 kW;
- RNY21:** Y joint for total power output installed downstream of more than 30kW but less than or equal to 70 kW;
- RNY31:** Y joint for total power output installed downstream of more than 70kW but less than or equal to 135 kW;
- RNY41:** Y joint for total power output installed downstream of more than 135 kW;
- RNF14:** F-joint for connecting several Indoor Units (from 2 to 4) with Total Installed Power downline less than or equal to 40kW and maximum Power that can be connected on each way equal to 16kW; the accessory is composed of two F-joints, one for the liquid line and one for the gas line.
- RNF18:** F-joint for connecting several Indoor Units (from 4 to 8) with Total Installed Power downline less than or equal to 68kW and maximum Power that can be connected on each way equal to 16kW; the accessory is composed of two F-joints, one for the liquid line and one for the gas line.
- RNF18B:** F-joint for connecting several Indoor Units (from 4 to 8) with Total Installed Power downline higher than 68kW and maximum Power that can be connected on each way equal to 16kW; the accessory is composed of two F-joints, one for the liquid line and one for the gas line.

- GL40:** Air delivery and recovery grille for indoor cassette-type units.

**Mandatory accessory for MVA\_C.**

- GL40S:** Air delivery and recovery grille for indoor cassette-type units.

**Mandatory accessory for MVA\_CS.**

- GL40B:** Air delivery and recovery grille for indoor cassette-type units.

**Mandatory accessory for MVA\_CB.**

**ACCESSORIES FOR INDOOR CASSETTE - TYPE UNITS - 1 Way**

- GLC1:** Air delivery and recovery grille for indoor Cassette - Type Units.

**Mandatory accessory for MVA\_C1.**

### CONTROL SYSTEMS ACCESSORIES

- MODBUSGW:** This accessory allows you to manage up to 16 MVA systems (with a maximum total of 128 indoor units), making a serial Modbus available for supervision with an external BMS.
- USBDC:** This kit includes a CANBUS to MODBUS converter and the VRF Debugger software; created to meet the needs of after sales service or authorised technicians who must carry out control and debugging procedures on the MVA range.
- WRC:** WIRED Soft-TOUCH PANEL this Accessory is supplied as standard with all Indoor Units; it is also possible to purchase an **additional WRC Wired Panel** to control a single Indoor Unit or set of Indoor Units (up to a maximum of 16), with the same settings from two separate locations.
- WRC1:** Wired Panel (Soft Touch) with the same characteristics of the **WRC**, but also equipped with an **Integrated External Contact**.

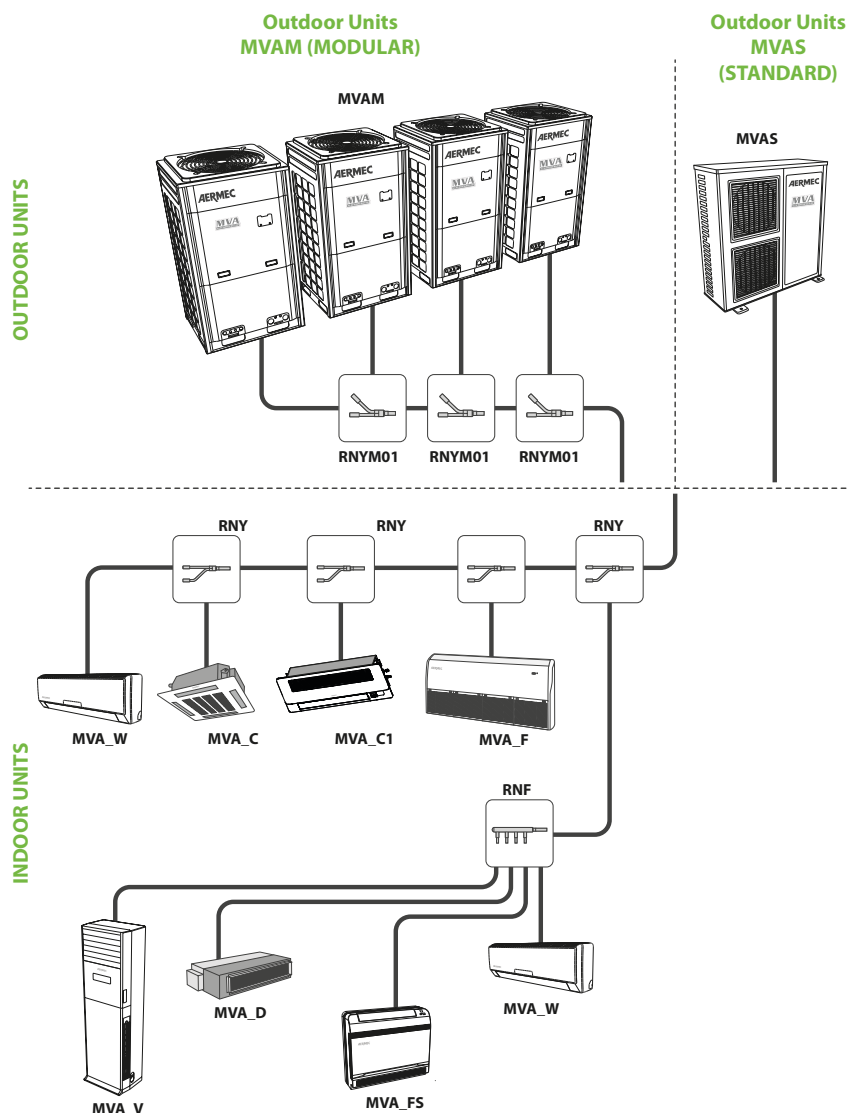
- WRCS: Simplified Control Wired Panel** for Indoor Unit with **built-in External Contact**. This panel is particularly suitable for hotel applications. It can control a single Indoor Unit or a set of Indoor Units (up to a maximum of 16) with the same settings from two separate locations.
- MVACC1:** Centralised Control (7" touch screen display), which can be used to manage up to 255 Indoor Units distributed across a maximum of 16 Systems.
- MVASZC:** Simplified Centralised Control (4,3" touch screen display), which can be used to manage up to 32 Indoor Units distributed across a maximum of 16 Systems.

### JOINTS (REFNET)

	MVAM	MVAS
RNYM01	•	
RNY11	•	•
RNY12	•	•
RNY21	•	•
RNY31	•	
RNY41	•	
RNF14	•	•
RNF18	•	
RNF18B	•	

### ACCESSORIES FOR INDOOR CASSETTE - TYPE UNITS - 4 Way

## Example of Refrigerant Connections



**OUTDOOR UNITS STANDARD**  
MINIMUM AND MAXIMUM NUMBER OF INDOOR UNITS

MVAS	Cooling Capacity Nominal (kW)	Indoor Units N° Min	Indoor Units N° Max
1200S	12,1	2	7
1400S	14	2	8
1600S	16	2	9
1200T	12,1	2	7
1400T	14	2	8
1600T	16	2	9
2241T	22,4	1	13
2801T	28	1	17
3350T	33,5	2	20

**OUTDOOR UNITS MVAS (STANDARD) For single split applications**

MVAS	Cooling Capacity Nominal (kW)	Number of Internal Units	Internal Unit Compatible
2241T	22,4	1	MVA2240DH
2801T	28,0	1	MVA2800DH

**Attention: The only possible combinations such as Split (for External MVAS) units are those specifically listed in the table.**

**OUTDOOR UNITS MVAM (MODULAR) For single split applications**

MVAM	Cooling Capacity Nominal (kW)	Number of Internal Units	Internal Unit Compatible
2240T	22,4	1	11,20
2800T	28,0	1	14,00
3350T	33,5	1	16,75
4000T	40,0	1	20,00
4500T	45,0	1	22,50
5040T	50,4	1	25,20
5600T	56,0	1	28,00
6150T	61,5	1	30,75

**Attention: single split pairings (for MVAM external units) must foresee an internal unit with a nominal refrigeration capacity higher than what specified in the table.**

## Recommended Combinations

	Cooling Capacity Nominal (kW)	Combinations MVAM				Connectible Indoor Units	
		Module				Quantity	
		(A)	(B)	(C)	(D)	MINIMUM <sup>(1)</sup>	MAXIMUM <sup>(2)</sup>
Base Module	22,40	2240T	---	---	---	1	13
	28,00	2800T	---	---	---	1	16
	33,50	3350T	---	---	---	1	19
	40,00	4000T	---	---	---	1	23
	45,00	4500T	---	---	---	1	26
	50,40	5040T	---	---	---	1	29
	56,00	5600T	---	---	---	1	33
	61,50	6150T	---	---	---	2	36
Combinations	68,00	2800T	4000T	---	---	2	39
	73,00	2800T	4500T	---	---	2	43
	78,40	2800T	5040T	---	---	2	46
	84,00	2800T	5600T	---	---	2	50
	89,50	2800T	6150T	---	---	2	53
	95,00	3350T	6150T	---	---	2	56
	101,50	4000T	6150T	---	---	2	59
	106,50	4500T	6150T	---	---	2	63
	111,90	5040T	6150T	---	---	3	64
	117,50	5600T	6150T	---	---	3	64
	123,00	6150T	6150T	---	---	3	64
	129,00	2800T	4500T	5600T	---	3	64

Modular system obtained by combining 2 to 4 base modules together.  
Connection between base modules must be carried out during installation.

<sup>(1)</sup> the overall cooling capacity of the indoor units can never be lower than 50% of the nominal cooling capacity of the outdoor unit (or the overall cooling capacity of the outdoor units);

<sup>(2)</sup> the overall cooling capacity of the indoor units can never be higher than 135% of the nominal cooling capacity of the outdoor unit (or the overall cooling capacity of the outdoor units);

	Cooling Capacity Nominal (kW)	Combinations MVAM				Connectible Indoor Units	
		Module				Quantity	
		(A)	(B)	(C)	(D)	MINIMUM <sup>(1)</sup>	MAXIMUM <sup>(2)</sup>
Combinations	134,50	2800T	4500T	6150T	---	3	64
	140,00	3350T	4500T	6150T	---	3	66
	145,50	2800T	5600T	6150T	---	3	69
	151,00	2800T	6150T	6150T	---	3	71
	156,50	3350T	6150T	6150T	---	3	74
	163,00	4000T	6150T	6150T	---	3	77
	168,00	4500T	6150T	6150T	---	4	80
	173,40	5040T	6150T	6150T	---	4	80
	179,00	5600T	6150T	6150T	---	4	80
	184,50	6150T	6150T	6150T	---	4	80
	190,50	2800T	4500T	5600T	6150T	4	80
	195,90	2800T	5040T	5600T	6150T	4	80
	201,50	2800T	5600T	5600T	6150T	4	80
	207,00	2800T	5600T	6150T	6150T	4	80
	212,50	2800T	6150T	6150T	6150T	4	80
	218,00	3350T	6150T	6150T	6150T	4	80
	224,50	4000T	6150T	6150T	6150T	5	80
	229,50	4500T	6150T	6150T	6150T	5	80
	234,90	5040T	6150T	6150T	6150T	5	80
	240,50	5600T	6150T	6150T	6150T	5	80
	246,00	6150T	6150T	6150T	6150T	5	80

## Admitted Combinations

Cooling Capacity Nominal	Combinations MVAM				Connectible Indoor Units	
	Module				Quantity	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM <sup>(1)</sup> MAXIMUM <sup>(2)</sup>
50,40	2240T	2800T	---	---	---	1 29
56,00	2800T	2800T	---	---	---	1 33
61,50	2800T	3350T	---	---	---	2 36
78,50	3350T	4500T	---	---	---	2 46
85,00	4000T	4500T	---	---	---	2 50
90,00	4500T	4500T	---	---	---	2 53
96,00	2800T	2800T	4000T	---	---	2 56
101,00	2800T	2800T	4500T	---	---	2 59
106,50	2800T	3350T	4500T	---	---	3 63
113,00	2800T	4000T	4500T	---	---	3 64
118,00	2800T	4500T	4500T	---	---	3 64

Modular system obtained by combining 2 to 4 base modules together.

Connection between base modules must be carried out during installation.

<sup>(1)</sup> the overall cooling capacity of the indoor units can never be lower than 50% of the nominal cooling capacity of the outdoor unit (or the overall cooling capacity of the outdoor units);

<sup>(2)</sup> the overall cooling capacity of the indoor units can never be higher than 135% of the nominal cooling capacity of the outdoor unit (or the overall cooling capacity of the outdoor units);

Cooling Capacity Nominal	Combinations MVAM				Connectible Indoor Units	
	Module				Quantity	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM <sup>(1)</sup> MAXIMUM <sup>(2)</sup>
123,50	3350T	4500T	4500T	---	---	3 64
130,00	4000T	4500T	4500T	---	---	3 64
135,00	4500T	4500T	4500T	---	---	3 64
141,00	2800T	2800T	4000T	4500T	---	3 66
146,00	2800T	2800T	4500T	4500T	---	3 69
151,50	2800T	3350T	4500T	4500T	---	3 71
158,00	2800T	4000T	4500T	4500T	---	3 74
163,00	2800T	4500T	4500T	4500T	---	3 77
168,50	3350T	4500T	4500T	4500T	---	4 80
175,00	4000T	4500T	4500T	4500T	---	4 80
180,00	4500T	4500T	4500T	4500T	---	4 80

## Outdoor Units Technical Data

Outdoor Units	MVAS	1200S	1400S	1600S	1200T	1400T	1600T	2241T	2801T	3350T
Cooling Capacity (Nominal)	kW	12,1	14,0	16,0	12,1	14,0	16,0	22,4	28,0	33,5
Total Power Input (Nominal)	kW	3,05	3,98	4,85	3,05	3,98	4,85	7,2	9,8	10,8
Input Current (Nominal)	A	15,0	19,2	23,4	5,2	6,4	7,6	12,5	17,5	19,3
EER	W/W	3,97	3,52	3,30	3,97	3,52	3,30	3,11	2,86	3,10
Heating Capacity (Nominal)	kW	14,0	16,5	18,5	14,0	16,5	18,5	24,0	30,0	35,0
Input power (Nominal)	kW	3,27	3,99	4,67	3,27	3,99	4,67	6,5	8,8	10,2
Input Current (Nominal)	A	15,8	19,3	23,0	5,8	6,8	7,8	11,0	15,7	18,2
COP	W/W	4,28	4,14	3,96	4,28	4,14	3,96	3,69	3,41	3,43
Nominal Input Power (1)	kW	5,7	6,3	6,8	6,2	6,7	7,02	9,6	12,5	13,7
Refrigerant	Type / GWP	R410A / 2088kgCO <sub>2</sub> eq								
Refrigerant Charge	kg	5	5	5	5	5	5	5,5	7,1	8,0
Compressors	DC Inverter	1	1	1	1	1	1	1	1	1
Nominal Air Flow Rate	m <sup>3</sup> /h	6000	6300	6600	6000	6300	6600	8000	11000	11000
Max. Total Length of Lines	m	300	300	300	300	300	300	300	300	300
Fans	n.	2	2	2	2	2	2	2	2	2
Sound Pressure (2)	dB (A)	55	56	58	55	56	58	60	62	63
Refrigerant Connections	Ø liquid	mm (inch)	9,52(3/8")	9,52(3/8")	9,52(3/8")	9,52(3/8")	9,52(3/8")	19,05(3/4")	22,2(7/8")	25,4(1")
	Ø gas	mm (inch)	15,9(5/8")	15,9(5/8")	19,05(3/4")	15,9(5/8")	15,9(5/8")	19,05(3/4")	9,52(3/8")	12,7(1/2")
	Type		Flared	Flared	Flared	Flared	Flared	To be soldered	To be soldered	To be soldered
Power Supply		220-240V ~ 50Hz				380-415V 3N ~ 50Hz				
		208-230V ~ 60Hz				380-415V 3N ~ 60Hz				

Outdoor Units	MVAM	2240T	2800T	3350T	4000T	4500T	5040T	5600T	6150T
Cooling Capacity (Nominal)	kW	22,4	28,0	33,5	40,0	45,0	50,4	56,0	61,5
Total Power Input (Nominal)	kW	5,20	7,0	8,41	10,65	12,65	14,20	16,00	18,50
Input Current (Nominal)	A	9,3	12,5	15,0	19,0	22,6	25,40	28,60	33,10
EER	W/W	4,31	4,00	3,98	3,76	3,56	3,55	3,50	3,32
Heating Capacity (Nominal)	kW	25	31,5	37,5	45,0	50,0	56,50	63,00	69,00
Input power (Nominal)	kW	5,5	7,30	9,0	11,10	13,0	14,10	16,60	18,90
Input Current (Nominal)	A	9,8	13,0	16,1	19,8	23,2	25,20	29,70	33,80
COP	W/W	4,55	4,32	4,17	4,05	3,85	4,01	3,80	3,65
Nominal Input Power (1)	kW	8,8	11,7	13,8	16,1	18,6	25,4	29,70	33,80
Refrigerant	Type / GWP	R410A / 2088kgCO <sub>2</sub> eq							
Refrigerant Charge	kg	5,9	6,7	8,2	9,8	10,3	11,30	14,30	14,30
Compressors	DC Inverter	1	1	1	2	2	2	2	2
Nominal Air Flow Rate	m <sup>3</sup> /h	11400	11400	14000	14000	14000	16000	16000	16000
Max. Total Length of Lines	m	1000	1000	1000	1000	1000	1000	1000	1000
Fans	n.	1	1	1	2	2	2	2	2
Sound Pressure (2)	dB (A)	60	61	63	63	63	63	63	64
Refrigerant Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")
	Ø gas	mm (inch)	19,05 (3/4")	22,2 (7/8")	25,4 (1")	25,4 (1")	28,6 (1" 1/8)	28,6 (1" 1/8)	28,6 (1" 1/8)
	Ø oil balancing	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	Type		Flared	Flared	Flared	Flared	Flared	Flared	Flared
Power Supply					380-415V 3N ~ 50Hz				
					380-415V 3N ~ 60Hz				

### Cooling (EN-14511)

Room Air Temperature 27°C b.s. / 19 b.u.; Outside Air Temperature 35°C

### Heating (EN-14511)

Room Air Temperature 20°C b.s.; Outside Air Temperature 7°C b.s. / 6°C b.u.

(1) The Nominal Input Power (Nominal Input Current) is the Maximum Input Electrical Power (Maximum Input Current) of the Indoor Unit, in accordance with the Standards EN-60335-1 and EN-60335-2-40

(2) Sound Pressure measured in Semi-Anechoic Chamber at 1m from the front.

## Indoor Units Technical Data

WALL	Indoor Units		MVA	220W	280W	360W	450W	500W	560W	630W	710W
	Cooling Capacity		kW	2,20	2,80	3,60	4,50	5,00	5,60	6,30	7,10
	Heating Capacity		kW	2,50	3,20	4,00	5,00	5,80	6,30	7,00	7,50
	Nominal Input Power (1)		W	50	50	60	60	60	70	70	70
	Nominal Air Flow Rate		m³/h	500	500	630	630	630	750	750	750
	Sound Pressure (Min.)		dB (A)	30	30	38	38	38	38	38	38
	Sound Pressure (Max.)		dB (A)	38	38	44	44	44	44	44	44
	Refrigerant Connections		Ø liquid Ø gas	mm (inch) mm (inch)	6,35 (1/4") 9,52 (3/8")	6,35 (1/4") 9,52 (3/8")	6,35 (1/4") 12,7 (1/2")	6,35 (1/4") 12,7 (1/2")	6,35 (1/4") 12,7 (1/2")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")
Power Supply 220-240V ~ 50Hz											
LOW-HEAD DUCT	Indoor Units		MVA	220D	250D	280D	320D	360D	400D		
	Cooling Capacity		kW	2,20	2,50	2,80	3,20	3,60	4,00		
	Heating Capacity		kW	2,50	2,80	3,20	3,60	4,00	4,50		
	Nominal Input Power (1)		W	35	35	35	43	43	52		
	Nominal Air Flow Rate		m³/h	450	450	450	550	550	700		
	Nominal useful static head (2)		Pa	30	30	30	30	30	30		
	Sound Pressure (Min.)		dB (A)	25	25	25	27	27	28		
	Sound Pressure (Max.)		dB (A)	31	31	31	32	32	33		
Refrigerant Connections		Ø liquid Ø gas	mm (inch) mm (inch)	6,35 (1/4") 9,52 (3/8")	6,35 (1/4") 9,52 (3/8")	6,35 (1/4") 9,52 (3/8")	6,35 (1/4") 12,7 (1/2")	6,35 (1/4") 12,7 (1/2")	6,35 (1/4") 12,7 (1/2")		
Power Supply 220-240V ~ 50Hz 208-230V ~ 60Hz											
LOW-HEAD DUCT	Indoor Units		MVA	450D	500D	560D	630D	710D	800D		
	Cooling Capacity		kW	4,50	5,00	5,60	6,30	7,10	8,00		
	Heating Capacity		kW	5,00	5,60	6,30	7,10	8,00	9,00		
	Nominal Input Power (1)		W	52	52	99	99	105	140		
	Nominal Air Flow Rate		m³/h	700	700	1000	1000	1100	1100		
	Nominal useful static head (2)		Pa	30	30	30	30	50	50		
	Sound Pressure (Min.)		dB (A)	28	28	30	30	30	31		
	Sound Pressure (Max.)		dB (A)	33	33	35	35	35	36		
Refrigerant Connections		Ø liquid Ø gas	mm (inch) mm (inch)	6,35 (1/4") 12,7 (1/2")	6,35 (1/4") 12,7 (1/2")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")		
Power Supply 220-240V ~ 50Hz 208-230V ~ 60Hz											
LOW-HEAD DUCT	Indoor Units		MVA	900D	1000D	1120D	1250D	1400D			
	Cooling Capacity		kW	9,00	10,00	11,20	12,50	14,00			
	Heating Capacity		kW	10,00	11,20	12,50	14,00	16,00			
	Nominal Input Power (1)		W	209	209	209	230	230			
	Nominal Air Flow Rate		m³/h	1500	1500	1700	2000	2000			
	Nominal useful static head (2)		Pa	50	50	50	50	50			
	Sound Pressure (Min.)		dB (A)	32	32	32	37	37			
	Sound Pressure (Max.)		dB (A)	40	40	40	42	42			
Refrigerant Connections		Ø liquid Ø gas	mm (inch) mm (inch)	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")			
Power Supply 220-240V ~ 50Hz 208-230V ~ 60Hz											
HIGH-HEAD DUCT	Indoor Units		MVA	560DH	630DH	710DH	800DH	900DH	1000DH		
	Cooling Capacity		kW	5,60	6,30	7,10	8,00	9,00	10,00		
	Heating Capacity		kW	6,30	7,10	8,00	9,00	10,00	11,20		
	Nominal Input Power (1)		W	120	120	130	130	200	200		
	Nominal Air Flow Rate		m³/h	1000	1000	1000	1000	1700	1700		
	Nominal useful static head (2)		Pa	100	100	100	100	100	100		
	Sound Pressure (Min.)		dB (A)	36	36	37	37	42	42		
	Sound Pressure (Max.)		dB (A)	44	44	45	45	46	46		
Refrigerant Connections		Ø liquid Ø gas	mm (inch) mm (inch)	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")		
Power Supply 220-240V ~ 50Hz 208-230V ~ 60Hz											
HIGH-HEAD DUCT	Indoor Units		MVA	1120DH	1250DH	1400DH	1600DH	2240DH	2800DH		
	Cooling Capacity		kW	11,20	12,50	14,00	16,00	22,40	28,00		
	Heating Capacity		kW	12,50	14,00	16,00	17,00	25,00	31,00		
	Nominal Input Power (1)		W	200	220	220	350	800	900		
	Nominal Air Flow Rate		m³/h	1700	2000	2000	2050	4000	4400		
	Nominal useful static head (2)		Pa	100	100	100	150	150	150		
	Sound Pressure (Min.)		dB (A)	42	42	44	46				
	Sound Pressure (Max.)		dB (A)	46	48	48	48	54	55		
Refrigerant Connections		Ø liquid Ø gas	mm (inch) mm (inch)	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 15,9 (5/8")	9,52 (3/8") 19,05(3/4")	9,52 (3/8") 19,05(3/4")	9,52 (3/8") 22,2 (7/8")		
Power Supply 220-240V ~ 50Hz 208-230V ~ 60Hz											
CASSETTE SMALL - 4 Way	Indoor Units		MVA	220CS	280CS	360CS	450CS	500CS	560CS		
	Cooling Capacity		kW	2,20	2,80	3,60	4,50	5,00	5,60		
	Heating Capacity		kW	2,50	3,20	4,00	5,00	5,60	6,30		
	Nominal Input Power (1)		W	35	35	35	45	45	45		
	Nominal Air Flow Rate		m³/h	600	600	600	700	700	700		
	Sound Pressure (Min.)		dB (A)	41	41	41	45	45	45		
	Sound Pressure (Max.)		dB (A)	51	51	51	55	55	55		
	Refrigerant Connections		Ø liquid Ø gas	mm (inch) mm (inch)	6,35 (1/4") 9,52 (3/8")	6,35 (1/4") 9,52 (3/8")	6,35 (1/4") 12,7 (1/2")	6,35 (1/4") 12,7 (1/2")	6,35 (1/4") 12,7 (1/2")	9,52 (3/8") 15,9 (5/8")	
Power Supply 220-240V ~ 50Hz 208-230V ~ 60Hz											



## Indoor Units Technical Data

CASSETTE - 4 Way	Indoor Units		MVA	280C	360C	450C	500C	560C	630C	710C	
	Cooling Capacity		kW	2,80	3,60	4,50	5,00	5,60	6,30	7,10	
	Heating Capacity		kW	3,20	4,00	5,00	5,60	6,30	7,10	8,00	
	Nominal Input Power (1)		W	48	48	48	50	59	59	68	
	Nominal Air Flow Rate		m³/h	750	750	750	830	1000	1000	1180	
	Sound Pressure (Min.)		dB (A)	-	-	-	-	-	-	-	
	Sound Pressure (Max.)		dB (A)	36	36	36	36	37	37	38	
	Refrigerant Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	
		Ø gas	mm (inch)	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	
	Power Supply		220-240V ~ 50Hz 208-230V ~ 60Hz								
	Indoor Units		MVA	800C	900C	1000C	1120C	1250C	1400C	1600CB	
	Cooling Capacity		kW	8,00	9,00	10,00	11,20	12,50	14,00	16,00	
	Heating Capacity		kW	9,00	10,00	11,20	12,50	14,00	16,00	17,50	
Nominal Input Power (1)		W	68	98	98	110	110	110	130		
Nominal Air Flow Rate		m³/h	1180	1500	1500	1700	1860	1860	2100		
Sound Pressure (Min.)		dB (A)	-	-	-	-	-	-	-		
Sound Pressure (Max.)		dB (A)	38	40	40	41	43	43	47		
Refrigerant Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")		
	Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")		
Power Supply		220-240V ~ 50Hz 208-230V ~ 60Hz									
CASSETTE - 1 Way	Indoor Units		MVA	220C1	280C1	360C1	450C1	500C1			
	Cooling Capacity		kW	2,20	2,80	3,60	4,50	5,00			
	Heating Capacity		kW	2,50	3,20	4,00	5,00	5,60			
	Nominal Input Power (1)		W	30	30	30	30	30			
	Nominal Air Flow Rate		m³/h	600	600	600	830	830			
	Sound Pressure (Min.)		dB (A)	28	28	28	30	30			
	Sound Pressure (Max.)		dB (A)	36	36	36	40	40			
	Refrigerant Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")			
		Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")			
	Power Supply		220-240V ~ 50Hz 208-230V ~ 60Hz								
CONSOLE	Indoor Units		MVA	220FS	280FS	360FS	450FS	500FS			
	Cooling Capacity		kW	2,20	2,80	3,60	4,50	5,00			
	Heating Capacity		kW	2,50	3,20	4,00	5,00	5,50			
	Nominal Input Power (1)		W	15	15	20	40	40			
	Nominal Air Flow Rate		m³/h	400	400	480	680	680			
	Sound Pressure (Max.)		dB (A)	38	38	40	46	46			
	Refrigerant Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")			
		Ø gas	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")			
Power Supply		220-240V ~ 50Hz 208-230V ~ 60Hz									
FLOOR CEILING	Indoor Units		MVA	280F	360F	500F	630F	710F			
	Cooling Capacity		kW	2,80	3,60	5,00	6,30	7,10			
	Heating Capacity		kW	3,60	4,00	5,60	7,10	8,00			
	Nominal Input Power (1)		W	40	40	50	75	75			
	Nominal Air Flow Rate		m³/h	650	650	950	1400	1400			
	Sound Pressure (Min.)		dB (A)	32	32	33	39	39			
	Sound Pressure (Max.)		dB (A)	36	36	42	44	44			
	Refrigerant Connections	Ø liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")			
		Ø gas	mm (inch)	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")			
	Power Supply		220-240V ~ 50Hz 208-230V ~ 60Hz								
	Indoor Units		MVA	900F	1120F	1250F	1400F				
	Cooling Capacity		kW	9,00	11,20	12,50	14,00				
	Heating Capacity		kW	11,20	12,50	14,00	16,00				
	Nominal Input Power (1)		W	140	160	160	160				
	Nominal Air Flow Rate		m³/h	1600	2000	2000	2000				
	Sound Pressure (Min.)		dB (A)	43	42	45	45				
	Sound Pressure (Max.)		dB (A)	50	51	52	52				
	Refrigerant Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")				
Ø gas		mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")					
Power Supply		220-240V ~ 50Hz 208-230V ~ 60Hz									
COLONNA	Indoor Units		MVA	1000V	1400V						
	Cooling Capacity		kW	10,00	14,00						
	Heating Capacity		kW	11,00	15,00						
	Nominal Input Power (1)		W	200	200						
	Nominal Air Flow Rate		m³/h	1600	1600						
	Sound Pressure (Min.)		dB (A)	46	46						
	Sound Pressure (Max.)		dB (A)	50	50						
	Refrigerant Connections	Ø liquid	mm (inch)	9,52 (3/8")	9,52 (3/8")						
		Ø gas	mm (inch)	15,9 (5/8")	15,9 (5/8")						
	Power Supply		220-240V ~ 50Hz 208-230V ~ 60Hz								

- Cooling (EN-14511)**  
Room Air Temperature 27°C b.s. / 19 b.u.;  
Outside Air Temperature 35°C
- Heating (EN-14511)**  
Room Air Temperature 20°C b.s.;  
Outside Air Temperature 7°C b.s. / 6°C b.u.

- (1) The *Nominal Input Power* (Nominal Input Current) is the *Maximum Input Electrical Power* (Maximum Input Current) of the Indoor Unit, in accordance with the Standards EN-60335-1 and EN-60335-2-40
- (2) *Nominal useful static head* is calculated at the maximum speed.

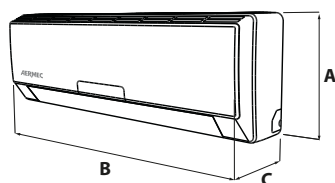
Sound Pressure measured in Semi-Anechoic Chamber at 1m from the front.

All internal units feature flare type refrigerant connections, except MVA2240DH and MVA2800DH which feature welded connections.



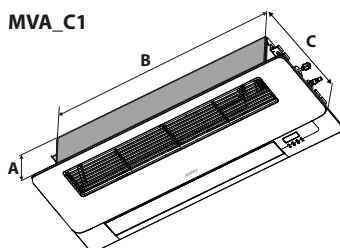
## Indoor Units Dimensional Data (mm)

**MVA\_W**



MVA_W	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220W	275	843	180	22
MVA280W	275	843	180	9,5
MVA360W	298	940	200	11
MVA450W	298	940	200	11
MVA500W	298	940	200	11
MVA560W	319	1008	221	13
MVA630W	319	1008	221	13
MVA710W	319	1008	221	13

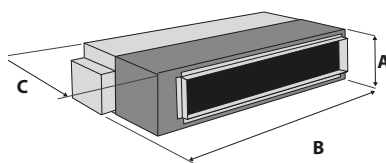
**MVA\_C1**



MVA_C1	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220C1	178	987	385	20
MVA280C1	178	987	385	20
MVA360C1	178	987	385	20
MVA450C1	178	987	385	20
MVA500C1	178	987	385	20

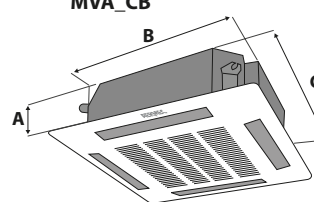
Grille Dimensions GLC1 1200 x 460 x 55mm - 4,2kg

**MVA\_D  
MVA\_DH**



MVA_D MVA_DH	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220D	200	700	615	22
MVA250D	200	700	615	22
MVA280D	200	700	615	22
MVA320D	200	700	615	22
MVA360D	200	700	615	22
MVA400D	200	900	615	27
MVA450D	200	900	615	27
MVA500D	200	900	615	27
MVA560D	200	1100	615	31
MVA630D	200	1100	615	31
MVA710D	260	1200	655	31
MVA800D	260	1200	655	40
MVA900D	260	1340	655	46
MVA1000D	260	1340	655	46
MVA1120D	260	1340	655	46
MVA1250D	260	1340	655	47
MVA1400D	260	1340	655	47
MVA560DH	268	1271	558	35
MVA630DH	268	1271	558	35
MVA710DH	268	1271	558	35
MVA800DH	268	1271	558	35
MVA900DH	290	1229	775	47
MVA1000DH	290	1229	775	47
MVA1120DH	290	1229	775	47
MVA1250DH	290	1229	775	47
MVA1400DH	290	1229	775	47
MVA1600DH	350	1340	750	60
MVA2240DH	327	1353	632	115
MVA2800DH	402	1563	706	115

**MVA\_CS  
MVA\_C  
MVA\_CB**



MVA_CS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220CS	240	596	596	20,5
MVA280CS	240	596	596	20,5
MVA360CS	240	596	596	20,5
MVA450CS	240	596	596	20,5
MVA500CS	240	596	596	20,5
MVA560CS	240	596	596	20,5

Grille Dimensions GL40S 670 x 670 x 50 mm - 3,5kg

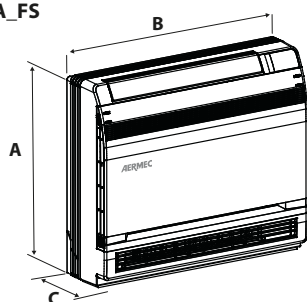
MVA_C	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA280C	190	840	840	25
MVA360C	190	840	840	25
MVA450C	190	840	840	25
MVA500C	190	840	840	25
MVA560C	240	840	840	30
MVA630C	240	840	840	30
MVA710C	240	840	840	30
MVA800C	240	840	840	30
MVA900C	320	840	840	35
MVA1000C	320	840	840	35
MVA1120C	320	840	840	35
MVA1250C	320	840	840	35
MVA1400C	320	840	840	35

Grille Dimensions GL40 950 x 950 x 60 mm - 7kg

MVA_CB	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA1600CB	293	910	910	45

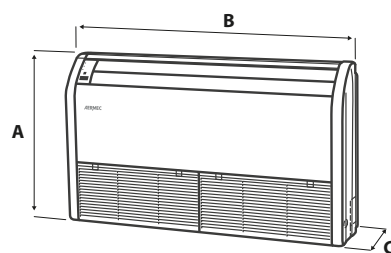
Grille Dimensions GL40B 1040 x 1040 x 65 mm - 8kg

**MVA\_FS**



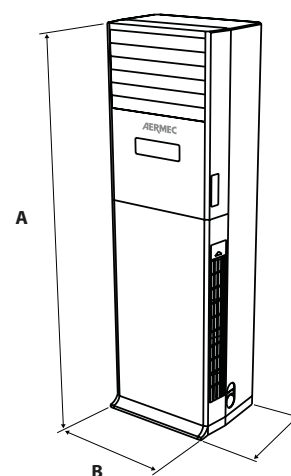
MVA_FS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA220FS	600	700	215	16
MVA280FS	600	700	215	16
MVA360FS	600	700	215	16
MVA450FS	600	700	215	16
MVA500FS	600	700	215	16

**MVA\_F**



MVA_F	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA280F	700	1220	225	40
MVA360F	700	1220	225	40
MVA500F	700	1220	225	40
MVA630F	700	1420	245	50
MVA710F	700	1420	245	50
MVA900F	700	1700	245	50
MVA1120F	700	1700	245	60
MVA1250F	700	1700	245	60
MVA1400F	700	1700	245	60

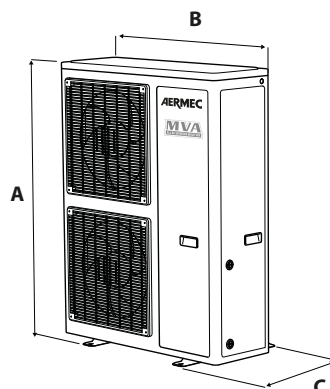
**MVA\_V**



MVA_V	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVA1000V	1870	580	400	54
MVA1400V	1870	580	400	57

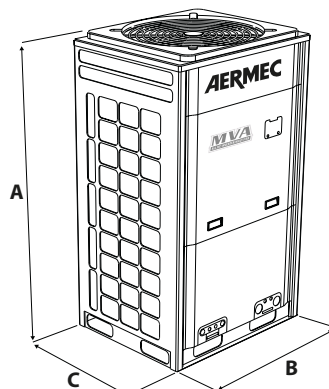
## Outdoor Units Dimensional Data (mm)

### MVAS



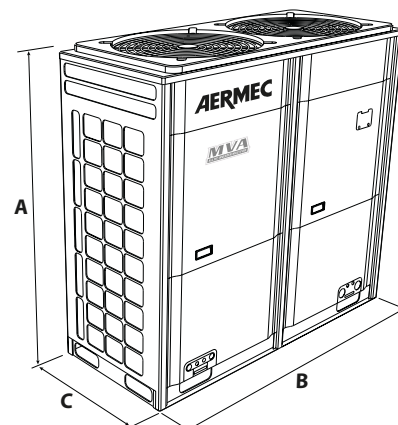
MVAS	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAS1200S	1345	900	340	110
MVAS1400S	1345	900	340	110
MVAS1600S	1345	900	340	110
MVAS1200T	1345	900	340	120
MVAS1400T	1345	900	340	120
MVAS1600T	1345	900	340	120
MVAS2241T	1430	940	320	133
MVAS2801T	1615	940	460	166
MVAS3350T	1615	940	460	177

### MVAM2240T MVAM2800T



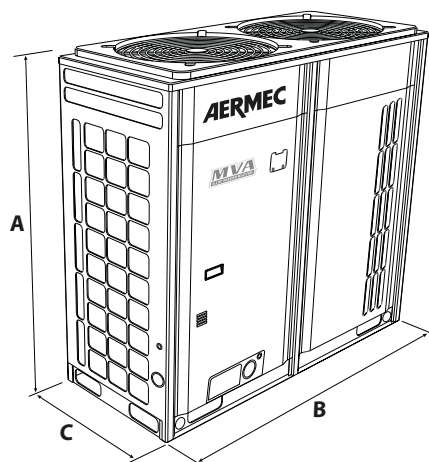
MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAM2240T	1605	930	765	225
MVAM2800T	1605	930	765	225

### MVAM3350T MVAM4000T MVAM4500T



MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAM3350T	1605	1340	765	285
MVAM4000T	1605	1340	765	360
MVAM4500T	1605	1340	765	360

### MVAM5040T MVAM5600T MVAM6150T



MVAM	A (mm)	B (mm)	C (mm)	Net Weight (kg)
MVAM5040T	1740	1340	765	360
MVAM5600T	1740	1340	765	385
MVAM6150T	1740	1340	765	385

## COMPLEMENTARY PRODUCTS

Aermec also offers a range of specific solutions that meet a whole host of air conditioning requirements, as well as those relating to installation under particular structural conditions.

<b>COMPLEMENTARY PRODUCTS</b>		<b>Air flow rate (m³/h)</b>	<b>Cool.Cap. (kW)</b>	<b>Pot. term. (kW)</b>	<b>Page</b>
<b>Thermal Buffer tank</b>					
<b>SAF</b>	DHW Thermal Buffer tank	-	-	-	528
<b>SAP</b>	Buffer tank with capacity from 75 to 3500 litres	-	-	-	530
<b>Plug&amp;Play hydronic kit</b>					
<b>WST</b>	Hydronic kit plug & play solution	-	82,2-283,9	-	534
<b>Cooling towers</b>					
<b>TRA</b>	Cooling towers	-	-	-	538
<b>Remote condensers - Dry coolers</b>					
<b>CSE-CDR-CVR-CGA-CMV-CVR</b>	Remote condensers	-	-	-	540
<b>WTE-WTR-WDR-WTS-WTA</b>	Dry coolers	-	-	-	552
<b>Water cooled condensing unit</b>					
<b>MEC-W</b>	Water-cooled packaged air conditioners	-	11,0-55,0	-	560
<b>FW-R</b>	Water-cooled air conditioners	-	2,9-4,0	4,3-5,2	562
<b>CWX</b>	Water cooled condensing unit	-	3,5-6,7	-	564
<b>Dehumidifier</b>					
<b>SMUFFO</b>	Portable dehumidifier	-	-	-	568
<b>DMP</b>	Recessed dehumidifier for use with underfloor systems	-	-	-	570



### VMF SYSTEM ACCESSORIES



VMF-E5N / VMF-E5B

- **VARIOUS VERSIONS THAT MAKE OPTIMUM USE OF THE DIFFERENT ENERGY SOURCES**
- **EASE OF INSTALLATION, EVEN IN CONFINED SPACES**

### Features

SAF are the new thermo-buffer for the **instantaneous** production of domestic hot water (DHW).

They integrate both the energy storage element and the heat exchanger, along with the control functions, into a single unit.

**The hot water** is taken from the water main and heated instantaneously by means of a plate heat exchanger in stainless steel: the separation between the drinking water circuit and the water contained in the accumulator ensures maximum hygiene. IN this way, the benefits of instant production are combined with those associated with buffer production.

These devices are specifically designed and manufactured to be **combined with heat pumps** but also with traditional or biomass boilers, solar thermal systems and other renewable sources.

### Versions

**SAF\_°:** Thermal Buffer powered by a single energy source. Equipped with plate heat exchanger for instantaneous production of DHW, high-efficiency circulator inverter and printed circuit board (PCB).

**SAF\_S:** The Thermal Buffer is set up for use and for complete management of an additional source (solar heating, boiler, etc.); in addition to the specially-designed extra coil, the system also includes a circulator dedicated to the supplementary source, along with control software designed to manage this

**SAF\_T:** Thermal Buffer with an additional coil for the integration of an auxiliary energy source.

**In addition to these versions, an supplementary heater (accessory) is also provided to respond to increased heating requirements.**

### Features

- The SAF system is available with a range of thermo-accumulators with different capacities, (200-300-500l), in order to meet a whole host of different DHW requirements
- The high-efficiency insulation prevents energy losses, to the advantage of the heat exchanger, allowing for significant reductions in running costs.
- The compactness and the new elegant and attractive design mean that it can be installed in restricted spaces, including those indoors.



Standard Version



Version with an additional coil for the integration

### Accessories

- **VTV160:** 3-way diverter sector valve, complete with 2-point actuator, (kvs = 16).
- **MOD485K:** RS-485 interface for supervising systems with MODBUS protocol.
- **MODU-485BL:** RS-485 interface for supervising systems with MODBUS

protocol.

- **VMF-E5:** recessed panel with backlit graphic LCD display and capacitive keypad, for centralised command/control of a complete hydronic system.
- **KRX-SAF:** supplementary electric heater with thermostat control from 1200W

230V/1/50Hz with connexion of 1" 1/2

**COMPATIBILITY with the VMF SYSTEM**  
For further information about the system see the specific documentation.

## Integration of SAF with Aermec heat pumps and compatibility with other accessories

Pompe di Calore	Taglie	Vers.	note	SAF	MOD485K	MODU485-BL*	VMF-E5	VTV160	KRX-SAF
ANL	020-202	H		*	*	*	*	*	*
ANLI	021-101	All	(1)	*	*	*	*	*	*
ANK	020-150	All		*	*	*	*	*	*
NRK	090-150	All		*	*	*	*	*	*
CL	025-200	H		*	*	*	*	*	*
ANKI	020-080	All	(1)	*	-	-	-	*	*
WRL	026-161	H	(1)	*	-	-	-	*	*
WRL	026-161	HT	(1)	*	-	-	-	-	*

(1) Range designed for the management domestic hot water: MOD485K and VMF-E5 accessories not required

\* To be installed on board of the heat pump

## Choice of unit

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Field	Code
1,2,3	SAF
4,5,6	Size
	200-300-500
7	Version
	° Standard
	S With supplementary energy source management (2)
	T Set up for use with supplementary energy source (2)
8,9	fields for future development
	°
	°

(2) Version not available for size 200

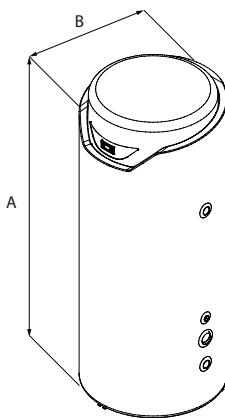
## Technical data

		200	300	500	300T	500T	300S	500S
	V/ph/Hz				230V/3/50Hz			
Actual volume (technical water)	l	199	290	480	279	465	279	465
Drinking water content	l				0,85			
Coil water content	l	-	-	-	10	13	10	13
Maximum operating pressure	bar				6			
Losses through dispersion	W	59,0	68,0	80,0	68,0	80,0	68,0	80,0
Energy efficiency class	(3)(4) -				B			
DHW minimum flow rate	l/min				2,0			
DHW maximum flow rate	l/min				35,0			
Maximum operating temperature	°C				95,0			
Sound pressure level	dB(A)				25			
<b>Electrical Data</b>								
Minimum input power	W	25	25	25	25	25	27	27
Maximum input power	W	75	75	75	75	75	127	127
Minimum input current	A	0,14	0,14	0,14	0,14	0,14	0,18	0,18
Maximum input current	A	0,53	0,53	0,53	0,53	0,53	1,05	1,05

(3) In accordance with Standard UNI EN 16147:2011

(4) In accordance with Delegated Regulation 812/2013

## Dimensions (mm)



		200	300	500	300P	500P	300S	500S
A x B	mm	1315x710	1690x710	1740x850	1690x710	1740x850	1690x710	1740x850
Weight without water	kg	75	89	116	96	131	101	136
Weight with water	kg	275	389	616	396	631	401	636

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

# SAP

Buffer tank with capacity from 75 to 3500 litres



## Features

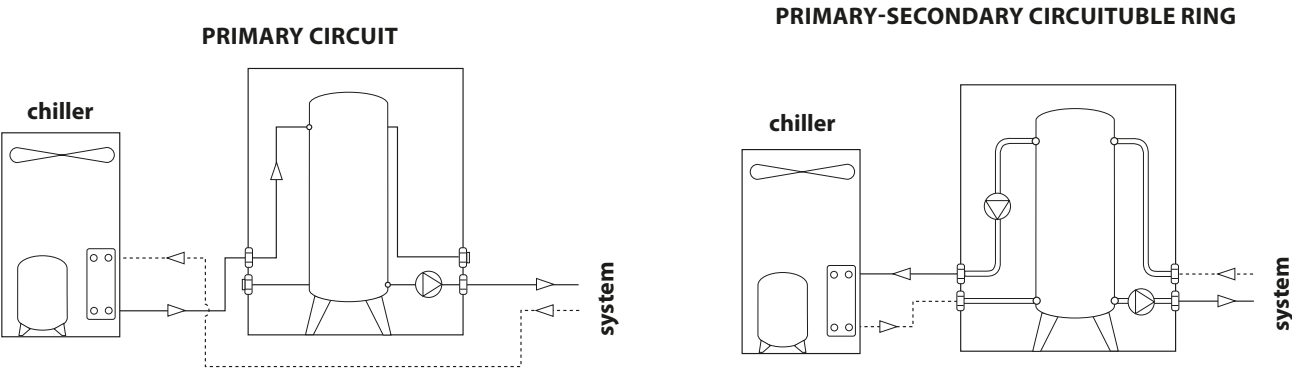
- Buffer tank with pump fully assembled to be used together with water chillers. Hydraulic connections to be site installed
- Units dimensionally compatible with Aermec NBW, NRA, R, RV water chillers, but also compatible with any chiller
- Steel enclosure with epoxy powder coating for the maximum resistance to weathering
- Electric centrifugal pumps with stainless steel impeller
- Overpressure relief valve
- Fully insulated water circuit
- Pump motors protected by circuit breakers
- SAP 0075 and 0150 can be supplied with 5 different pump models with water flow rates up to 18,000 l/h and pressures up to 140 kPa (maximum 2 pumps can be installed internally)
- SAP 0300, 0500, 0501, 0750 and 1000 can be supplied with 8 models of pumps with water flow rates up to 60,000 l/h and pressures up to 200 kPa (pump set configurations with standby pump are possible). For correct sizing of the unit consult the technical manual.
- SAP 1500, 2500 and 3500 can be supplied with 10 models of pumps with water flow rates up to 200,000 l/h and pressures up to 300 kPa (pump set configurations with standby pump are possible). For correct sizing of the unit consult the technical manual.

## Accessories

- **AVX:** Spring anti-vibration mounts. Select the AVX model from the compatibility table included in the technical manual.
- **RX - RXV:** Electric immersion heater (RX: 500 W - RXV: 3 kW), installed and controlled by thermostats to prevent freezing during winter. **Factory fitted only.**
- **VT:** Anti-vibration mounts, set of four anti-vibration mounts to be installed under the unit's base.

Accessory compatibility				
SAP	RX	RXV	VT 2	VT 8
0075	•			•
0150	•			•
0300	•		•	
0500 - 0501	•		•	
0750	•		•	
1000	•		•	
1500		•		
2500		•		
3500		•		





Technical Data

Mod. SAP		0075	0150	0300	0500	0501
Capacity	l	75	150	300	500	500
Expansion tank capacity	l	8	12	18	24	24
Relief valve setting	bar	6	6	6	6	6
Water connections	(1)	F	F	F	F	F
Connection diameter	Ø	1" 1/4	1" 1/2	2"	2" 1/2	2" 1/2

Mod. SAP		0750	1000	1500	2500	3500
Capacity	l	750	1000	1500	2500	3500
Expansion tank capacity	l	18 x 2	18 x 2	24 x 2	24 x 3	24 x 3
Relief valve setting	bar	6	6	6	6	6
Water connections	(1)	F	F			
Connection diameter	Ø	3"	3"			

Model Pump	R	T	U	V	X	Y	W	K	J	I
1500 flange (*) Ø	125	125	150	150	150	150	200	200	200	200
2500 flange (*) Ø	125	125	150	150	150	150	200	200	200	200
3500 flange (*) Ø	125	125	150	150	150	150	200	200	200	200

Power supply = 3N~ 400V 50Hz.  
(1) F = Female connection (Gas)  
(\*) PN16UNI2278

## Technical Data

Pump motor power input													
Pump		A	B	C	E	F	G	H	I	J	K	L	M
Max. input power	W	275	330	614	895	1070	1550	2050	22000	17500	14500	3100	4100
Max. input current	A	0,5	0,69	1,1	1,6	1,9	2,8	3,6	43	36,4	30	5,6	7,2

Pump			N	P	Q	R	T	U	V	W	X	Y
Max. input power	W		1470	2600	5200	4000	5200	5800	8000	11500	9000	11000
Max. input current	A		2,6	4,4	8,8	8,5	11,5	15,5	15,5	22,5	22,5	22,5

Pump combinations												
SAP 0075	AC	AE	AF	AZ	BC	BE	BF	BZ	ZC	ZE	ZF	ZZ
SAP 0150	AC	AE	AF	AZ	BC	BE	BF	BZ	CC	CE	CF	CZ
	EC	EE	EF	EZ	FC	FE	FF	FZ	ZC	ZE	ZF	ZZ
SAP 0300						CS	CZ	ES	EZ	FS	FZ	ZZ
SAP 0500				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP 0501				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP 0750				FS	FZ	GS	GZ	HS	HZ	LS	LZ	MS
SAP 1000					MZ	NS	NZ	PS	PZ	QS	QZ	ZZ
			LS	LZ	MS	MZ	NS	NZ	QS	QZ	ZZ	
SAP 1500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ
SAP 2500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ
SAP 3500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ

**1st letter:** primary circuit.

**2nd letter:** secondary circuit.

**A, B** = multi-speed water pumps.

**L, M, Q** = twin pump set.

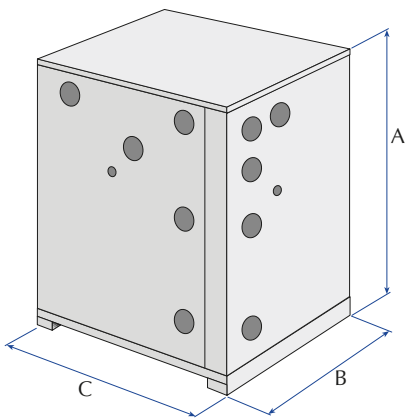
**S** = pump and standby pump set.

**Z** = without pump.

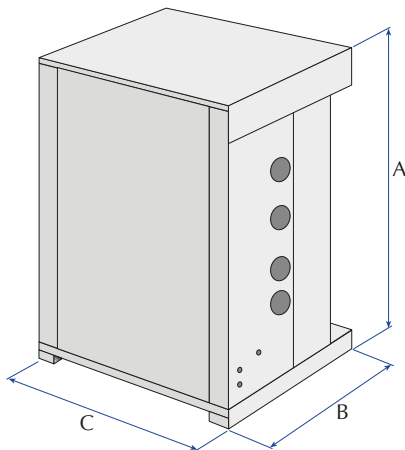
**The combinations shown in the table are the only possible ones.**

**A large number of different flow rate/pressure combinations are available. Refer to the technical manual.**

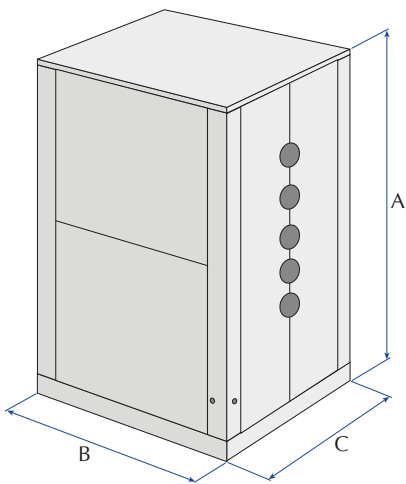
SAP 0075 - 0150



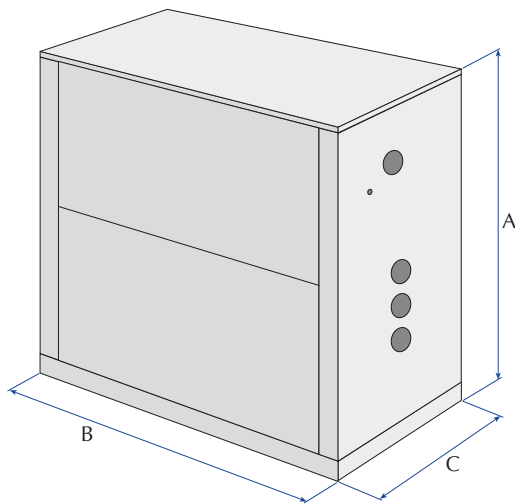
SAP 0300 - 0500



SAP 0501 - 0750



SAP 1000 - 1500 - 2500 - 3500



SAP		0075	0150	0300	0500	0501	0750	1000	1500	2500	3500
Height	A	1000	1000	1650	1650	1968	1968	2049	2049	2049	2049
Width	B	1000	1000	1100	1100	1550	1550	2200	2200	2200	2200
Depth	C	700	700	1100	1100	1000	1000	1000	1750	2000	2300
Net weight (ZZ version)	kg	120	120	190	230	310	400	445	560	710	790



- **FOR NXW RANGE**
- **PACKAGED PLUG & PLAY CONTAINING THE MAIN HYDRAULIC COMPONENTS**
- **IDEAL FOR INDUSTRIAL APPLICATIONS WHERE CHILLED WATER IS REQUIRED IN WINTER SEASONS**
- **FREECOOLING OPERATION**

## Characteristics

- Hydronic plug & play kit containing the main hydraulic and controls components of a hydraulic installation.

The WST units are designed to ease the installation in systems where the production of chilled water is required all year round, in combination with a water-water chiller and a drycooler.

### Operation

**Chiller:** When the external air temperature is higher than the system return water temperature the cooling capacity is provided by the chiller. The WST controls the drycooler by modulating the fans on the basis of the chiller condensing pressure.

**Freecooling:** When the external air temperature is then lower then WST turns off the chiller and uses the water from the drycooler to cool the system water through the freecooling heat exchanger.

### Hydraulic components

#### Hydraulic circuit (drycooler side)

- Water filter
- Flow switches
- Isolating valves
- Mixing valve
- Bypass valves
- Pumps
- Butterfly valves (enabling freecooling)
- High efficiency plate heat exchanger (freecooling)
- Water temperature sensors

#### Hydraulic circuit (chiller side)

- Water filter
- Flow switches
- Isolating valves
- Pumps
- Water temperature sensors

### NOTE

**For the combination of the hydronic kit options (drycooler / chiller side), refer to the configurator.**

### Control

- Microprocessor based electronic control with Modbus communications protocol.

**The WST comes standard with accessorio aer485p1. Accessory to predict compulsorily nell'NXW, for communication between the units.**

- Advanced electronic continuous monitoring of multiple operating parameters and ambient conditions, in order to switch between the operating modes (chiller/freecooling), when available. This permits the reduction of operating costs and provides higher energy efficiency.
- Control of the drycooler fans in order to manage the chiller condensing pressure (chiller mode), or the recovered capacity (freecooling mode).
- Cold chiller starting control by modulating the drycooler fans and the mixing valve.
- Structure and base in epoxy painted hot dipped galvanised steel.

## Accessories

- **VT:** Anti-vibration mounts.

## Accessories compatibility

WST only cooling		01	02	03	04	05	06
AVX	without pump stand-by	325	326	327	328	328	328
	with pump stand-by	325	327	327	329	329	329

Warning: NXW unit is required to use the attachment AER485P1

## Tav. pairings WST

Chiller	WST	Dry coolers recommended <sup>(2)</sup>
NXW0500 NXW0550	WST01	WTR 824 EC 980
NXW 0600 NXW 0650	WST02	WTR 834 EC 980
NXW 0700 NXW 0750	WST03	WTR 844 EC 980
NXW 0800 NXW 0900	WST 04	WTR 854 EC 980
NXW 1000 NXW 1250	WST 05	WTR 864 EC 980
NXW 1400	WST 06	WTR 874 EC 980

The combinations are referred to the following conditions, to be verified in the case of particular conditions: refers to standard conditions

### Cooling

#### System side

Water temperature (in/out) 12°C/7°C; Glycol 0%.

#### Dry-cooler side

Water temperature (in/out) 38°C/43°C; Glycol 35%.

(2) EC is compulsory adjustment on the fans of Dry cooler

## Unit selection

By suitably combining the numerous options available it is possible to configure each model in such a way as to meet the most demanding of system requirements.

Field	Description
1,2,3	WST
4,5	Size 01-02-03-04-05-06
6	Kit freecooling
	F Freecooling
7	System water flow
	° Standard (constant water flow rate)
8	System side connected hydronic kit <sup>(3)</sup>
P1	n° 1 Low head system pump
P2	n° 2 Low head system pumps
P3	n° 1 High head system pump
P4	n° 2 High head system pumps
9	Drycooler side connected hydronic kit <sup>(3)</sup>
D1	n° 1 Low head system pump
D2	n° 2 Low head system pumps
D3	n° 1 High head system pump
D4	n° 2 High head system pumps

	P1	P2	P3	P4
D1	ok	n.d.	ok	n.d.
D2	n.d.	ok	n.d.	ok
D3	ok	n.d.	ok	n.d.
D4	n.d.	ok	n.d.	ok

(3) For the compatibility between hydronic kits refer to the adjacent table

## Technical data

Mod. WST Water Station			01	02	03	04	05	06
<b>System side</b>								
Water flow rate		l/h	17633	23458	29756	40627	51324	60613
Useful static pressure	(P1/P2)	kPa	134	133	174	164	178	119
Useful static pressure	(P3/P4)	kPa	226	217	250	235	254	198
Power input	(P1/P2)	kW	1,5	2,2	3,5	4,0	5,1	4,7
Power input	(P3/P4)	kW	2,5	3,1	4,7	5,4	6,8	6,4
<b>Dry cooler side (chiller mode)</b>								
Water flow rate		l/h	24718	32876	41676	55673	71920	84920
Useful static pressure	(D1/D2)	kPa	119	126	138	173	187	178
Useful static pressure	(D3/D4)	kPa	172	201	209	250	245	214
Power input	(D1/D2)	kW	2,3	3,7	4,1	6,0	12,3	12,7
Power input	(D3/D4)	kW	3,0	4,9	5,4	6,7	11,8	13,9
<b>Dry cooler side (freecooling mode)</b>								
Cooling capacity		kW	82,2	108,5	137,9	188,0	241,3	283,9
Water flow rate		l/h	24718	32876	41676	55673	71920	84920
Useful static pressure	(D1/D2)	kPa	71	79	109	141	144	125
Useful static pressure	(D3/D4)	kPa	125	154	180	218	202	160
Power input	(D1/D2)	kW	2,3	3,7	4,1	6,0	12,3	12,7
Power input	(D3/D4)	kW	3,0	4,9	5,4	6,7	11,8	13,9

### Cooling

#### System side

Water temperature (in/out) 12°C/7°C, Glycol 0%.

#### Dry-cooler side

Water temperature (in/out) 38°C/43°C; Glycol 35%.

### Cooling in freecooling mode (100%)

#### System side

Water temperature (in/out) 14°C/\*; Water flow rate as in cooling operation; Glycol 0 %

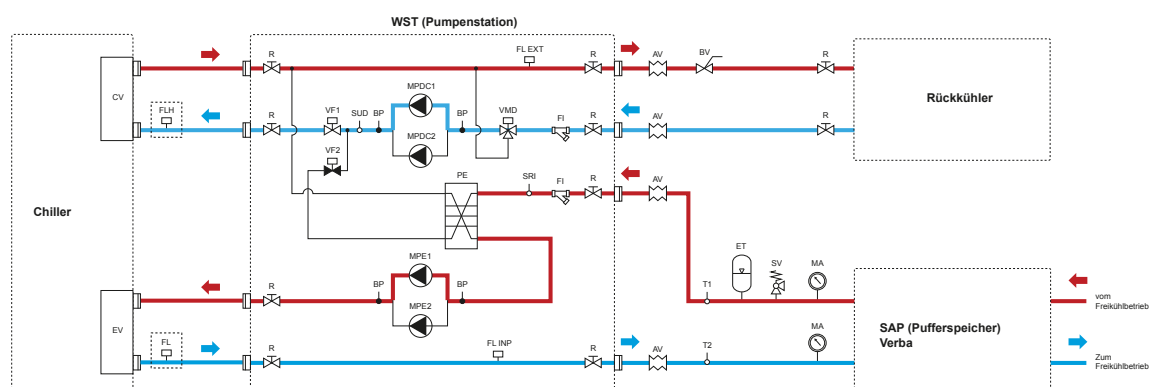
#### Dry-cooler side

Water temperature (in/out) 6,7°C/\*; Water flow rate as in cooling operation; Glycol 35%

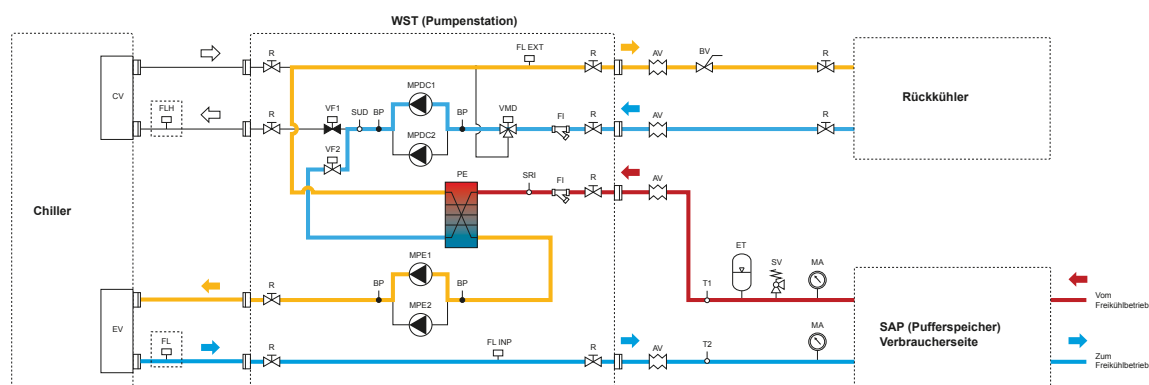
GENERAL DATA			01	02	03	04	05	06
<b>Electrical data</b>								
Total input current	(P1/P2)	A	2,7	3,9	5,8	6,6	8,5	7,8
	(P3/P4)	A	4,3	5,5	7,8	8,9	11,1	10,4
	(D1/D2)	A	4,0	6,0	6,6	9,9	20,8	20,3
	(D3/D4)	A	5,2	8,2	9,0	10,9	18,9	22,0
Maximum current (FLA)	P1(P2) - D1(D2)	A	8,6	13,1	16,3	19,1	31,2	37,0
	P3(P4) - D1(D2)	A	11,4	14,4	19,1	22,0	34,8	40,6
	P1(P2) - D3(D4)	A	10,0	16,0	19,1	22,7	37,0	37,0
	P3(P4) - D3(D4)	A	12,8	17,2	22,0	25,6	40,6	40,6
<b>hydraulic connections</b>								
hydraulic connections (in/out)	type	Victaulic	Victaulic	Victaulic	Victaulic	Victaulic	Victaulic	Victaulic
hydraulic connections system side	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"
hydraulic connections (chiller)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"
hydraulic connections (dry cooler)	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"	3"	3"

## Operating schematics

## Chiller Operation

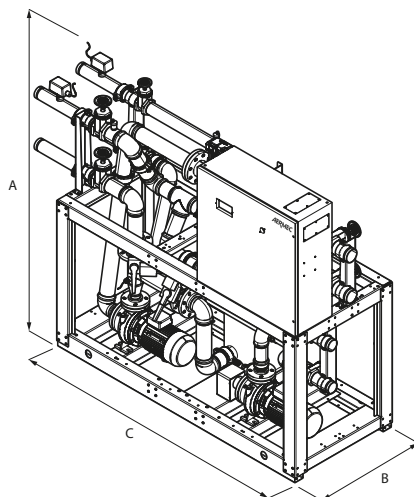


### Freecooling Operation



The images and drawings contained in this document are indicative only, for the purpose of illustrating the operation

### Dimensional data (mm)



Model WST Water Station			01	02	03	04	05	06
Height	A	mm	1835	1837	1835	1956	2206	2206
Width	B	mm	796	796	796	796	796	796
Depth	(3) C	mm	1400	1500	2010	2282	2579	2623
Weight empty	without pump stand-by	Kg	487	577	684	893	1054	1074
	with pump stand-by	Kg	579	790	941	1140	1320	1350

(3) Including protrusions of the hydraulic connections

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
[www.aermec.com](http://www.aermec.com)



# TRA

Cooling towers with capacities from 49.53 up to 1084.88 kW



## Features

- Available in 17 different sizes
- **TRA from 50 up to 750 silenced and Inspection window standard**
- **TRA from 850 up to 1100 standard TRA from 850 up to 1100 silenced (L)**
- All with inspection door to a crawl Series**
- Entirely built of fibre-glass reinforced resin to avoid corrosion problems with surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather
- Limited to the three largest sizes (TRA 850, 950 and 1100) the bearing structure is made of hot galvanised steel with 22mm thick fibreglass reinforced resin sandwich panels, with support foam material inside. In this way, as well achieving good mechanical strength the sound of the water flowing is muffled. Surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather.
- Self-bearing structure
- Exchange pack and drip separator made of self-extinguishing PVC
- PVC water distribution pipes with polypropylene nozzles
- Hydrometer (when there is not water flow rate measuring device, this instrument makes possible to have an approximate indication of the flow rate of the water in circulation based on the nozzle load drop)
- Plastic bleed cock
- Axial high efficiency fan with several blades
- Water drip pan, waterproof and water resistant made of fibreglass reinforced polyester resin with multi layer glass material
- Personal protection grill made of AISI 304 on the fan outlet

## Accessories\*

- **RT:** Heater element with regulating thermostat.

Compatibility of accessories																	
TRA	50	70	90	110	130	170	200	240	300	400	500	550	600	750	850	950	1100
RT 11 (1 kW)		•	•	•	•												
RT 12 (2 kW)						•	•	•	•								
RT 13 (3 kW)										•	•	•					
RT 15 (5 kW)													•	•	•	•	
RT 17 (7.5 kW)																	•

N.B. = In the case of RT accessories, the number between brackets indicates the capacity of the heater element.

\* = All the accessories and/or variants must in all cases be specified when the order is placed.

## Technical data

Mod. TRA		50	70	90	110	130	170	200	240	300
Capacity	kW	49,53	69,06	88,60	107,44	125,58	168,14	197,67	242,09	302,33
Air flow rate	m <sup>3</sup> /h	4500	4500	8100	8100	8100	12600	12600	18100	18100
Water flow rate	l/h	7100	9900	12700	15400	18000	24100	28330	34700	43300
Pressure drops	kPa	42	32	52	32	42	28	35	23	40
Motor power	kW	0,55	0,75	0,75	0,75	1,1	1,1	1,5	1,5	2,2
Motor poles	n.	4	4	4	4	6	6	6	6	6
Motor poles (double polarity)	n.	4/8	4/8	4/8	4/8	6/12	6/12	6/8	6/8	6/8
Fans	n.	1	1	1	1	1	1	1	1	1
Nozzles	n.	1	1	1	1	1	1	1	4	4
Sound pressure	dB (A)	52	52	54	54	54	54	54	55	55

Mod. TRA		400	500	550	600	750	850	950	1100
Capacity	kW	405,35	488,37	574,19	604,88	767,44	856,74	941,86	1084,88
Air flow rate	m <sup>3</sup> /h	28350	28350	36000	45350	45350	58000	58000	67000
Water flow rate	l/h	58100	70000	82300	86700	110000	122800	135000	155500
Pressure drops	kPa	28	40	55	30	48	49	25	32
Motor power	kW	2,2	4	5,5	4	5,5	5,5	5,5	7,5
Motor poles	n.	6	6	6	6	6	8	8	8
Motor poles (double polarity)	n.	6/8	6/12	6/12	6/12	8/16	8/16	8/16	8/16
Fans	n.	1	1	1	1	1	1	1	1
Nozzles	n.	4	4	4	9	9	16	16	16
Sound pressure	dB (A)	57	57	58	61	61	62	62	64
Sound pressure (silenced version)	dB (A)						56	56	57

\* = Sizes from 50 to 750 are only muted.

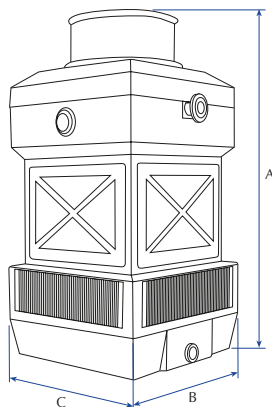
Power supply = 3~ 230V 50Hz; 3N~ 400V 50Hz.

Performance values refer to the following conditions:

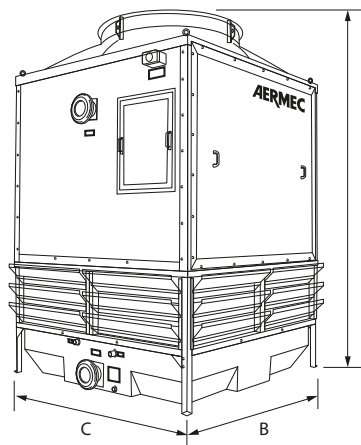
Sound pressure measured in free field conditions at distance of 10 m  
with direction factor = 2.

- air inlet temperature 23.5 °C W.B.;
- water inlet temperature 35 °C;
- water outlet temperature 29 °C

## Dimensions (mm)



TRA 50-750



TRA 850-1100  
TRA 850L-1100L

Mod. TRA		50	70	90	110	130	170	200	240	300	400
Height	A	2110	2110	2595	2595	2595	2800	2800	2860	2860	3140
Width	B	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Depth	C	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Weight	kg	75	75	85	95	95	170	170	210	210	410

Mod. TRA		500	550	600	750	850	850L	950	950L	1100	1100L
Height	A	3140	3380	3450	3450	3650	3900	3650	3900	3650	3900
Width	B	1740	1900	2100	2100	2030	2030	2030	2030	2360	2360
Depth	C	1740	2100	2300	2300	2360	2360	2360	2360	2360	2360
Weight	kg	410	500	555	580	850	850	815	815	915	915

# CSE-CDR-CVR-CGA-CMV

## Remote condensers



## Features

### CSE SERIES

#### General features

- Design has privileged modularity, each unit is made up from standard sections, whose elements can be easily removed.
- Starting from the CSE 563 for the ø 500 range, from the CSE 663 for the ø 630 range, there are models consisting of two side by side units, making vertical installation impossible.
- All the other models are designed both for horizontal and vertical installation.
- To facilitate the connection of the condensers to the electrical system, the fan motors are wired in the factory (excluding 350 diameter range) and connected to a junction box positioned on the collector side and protected along with the latter by a lid that can be easily removed.

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- Coils with staggered copper pipes and corrugated or mechanically expanded aluminium louvers. The coils are fixed to the shoulders in a way to prevent pipe breakage due to any vibrations.
- Copper collectors with welded connections, closed to prevent impurities and moisture from getting into the circuits.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: They are designed for  $\Delta/Y$  connections and different polarities and allow continuous regulation of the speed via voltage reduction.

#### Available versions:

- (B) base
- (S) silent
- (E) Super silent.

### CDR SERIES

#### General features

- Two exchangers positioned as V
- Two independent cooling circuits
- Two rows of fans with diameter of 800mm
- From 6 to 10 fans
- Separate ventilation compartments for each fan

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- High efficiency louvred heat exchangers.

- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.

#### Available versions:

- (BT) base 6 poles
- (ST) silent 8 poles
- (ET) Super silent 12 poles

### CVR SERIES

#### General features

- Two exchangers positioned as V
- Fans diameter 800 mm
- From 2 to 5 fans
- Separate ventilation compartments for each fan

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- High efficiency louvred heat exchangers.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan. The extremely small dimensions allow installation in contained spaces, high output power per surface occupied.

#### Available versions:

- (BT) base 6 poles
- (ST) silent 8 poles
- (ET) Super silent 12 poles

### CGA SERIES

#### General features

- V exchangers configuration
- Low noise
- Two rows of fans with diameter of 800mm
- From 6 to 12 fans

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents.
- High efficiency louvred heat exchangers.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.

#### Available versions:

- (BT) standard
- (ST) silent
- (ET) super silent
- (CT) Electronic switch-over with brushless motor

### CMV SERIES

#### General features

- Configuration: Microchannel condensers for module
- 1 or 2 circuits
- Two rows of fans

#### Construction features

Made using technologies and materials that provide long-lasting weather resistance.

High efficiency finned pack heat exchangers, made with copper pipes and aluminium louvers. Next generation 800 mm diameter axial fans in both AC and EC version to minimise energy consumption. The standard units are supplied with the fans wired onto the junction box.

#### Available versions:

- (BTD): 6-pole with triangle connection
- (BTY): 6-pole with star connection
- (STD): 8-pole with triangle connection
- (STY): 8-pole with star connection
- (CTB): high power motorised EC fan
- (CTE): low noise motorised EC fan

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WRL 026 E	1	R410A	8.0	CSEX3013BM*	1	8.56	66	34	37	AC	230V	standard	610	560	308
				CSEX3013CMS 990 [rpm]	1	8.06	57	26	29	EC	230V	standard	610	560	308
				CSEX5013ETY	1	13.71	57	25	28	AC	400V	standard	1105	833	1060
				CSEX5013CTB 560 [rpm]	1	13.93	56	24	27	EC	400V	standard	1105	833	1060
WRL 031 E	1	R410A	9.8	CSEX3014BM*	1	9.44	66	34	37	AC	230V	Standard	610	560	308
				CSEX3022SM*	1	11.95	59	27	30	AC	230V	Standard	1160	560	308
				CSEX3014CMS 1115 [rpm]	1	9.72	60	29	32	EC	230V	Standard	610	560	308
				CSEX5013ETY	1	13.71	57	25	28	AC	400V	Standard	1105	833	1060
WRL 041 E	1	R410A	13.2	CSEX5013CTB 560 [rpm]	1	13.93	56	24	27	EC	400V	Standard	1105	833	1060
				CSEX3022BM*	1	13.68	69	37	40	AC	230V	Standard	1160	560	308
				CSEX3022CMS 1050 [rpm]	1	13.48	62	30	33	EC	230V	Standard	1160	560	308
				CSEX5013ETY	1	13.71	57	25	28	AC	400V	Standard	1105	833	1060
WRL 051 E	1	R410A	17.0	CSEX5013CTB 560 [rpm]	1	13.93	56	24	27	EC	400V	Standard	1105	833	1060
				CSEX5013ETD	1	16.29	60	28	31	AC	400V	Standard	1105	833	1060
				CSEX5013STD	1	19.84	65	34	37	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 800 [rpm]	1	17.98	63	31	34	EC	400V	Standard	1105	833	1060
WRL 071 E	1	R410A	21.9	CSEX5013BTY	1	21.41	70	39	42	AC	400V	Standard	1105	833	1060
				CSEX5013STD	1	25.75	76	45	48	AC	400V	Standard	1105	833	1060
				CSEX5014STD	1	22.18	65	34	37	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 1160 [rpm]	1	22.78	70	39	42	EC	400V	Standard	1105	833	1060
WRL 081 E	1	R410A	25.0	CSEX5014CTB 920 [rpm]	1	22.09	65	34	37	EC	400V	Standard	1105	833	1060
				CSEX5013STD	1	25.75	76	45	48	AC	400V	Standard	1105	833	1060
				CSEX5015BTY	1	25.47	70	39	42	AC	400V	Standard	1105	833	1060
				CSEX5013CTB 1380 [rpm]	1	25.23	74	43	46	EC	400V	Standard	1105	833	1060
WRL 101 E	1	R410A	34.0	CSEX5014CTB 1160 [rpm]	1	26.13	70	39	42	EC	400V	Standard	1105	833	1060
				CSEX5015CTB 1040 [rpm]	1	25.96	68	37	40	EC	400V	Standard	1105	833	1060
				CSEX6013STD	1	35.16	74	43	46	AC	400V	Standard	1355	1033	1213
				CSEX6014BTY	1	34.8	69	38	41	AC	400V	Standard	1355	1033	1213
WRL 141 E	1	R410A	43.8	CSEX5024STD	1	33.73	61	29	32	AC	400V	Standard	2045	833	1060
				CSEX5015CTB 1490 [rpm]	1	34.14	76	44	47	EC	400V	Standard	1105	833	1060
				CSEX5022CTB 1040 [rpm]	1	33.64	71	40	43	EC	400V	Standard	2045	833	1060
				CSEX5023CTB 800 [rpm]	1	36.65	66	34	37	EC	400V	Standard	2045	833	1060
WRL 161 E	1	R410A	50.0	CSEX5023BTY	1	43.75	73	42	45	AC	400V	Standard	2045	833	1060
				CSEX5024STD	1	45.27	68	37	40	AC	400V	Standard	2045	833	1060
				CSEX5023CTB 1160 [rpm]	1	46.47	73	42	45	EC	400V	Standard	2045	833	1060
				CSEX5023CTB 1040 [rpm]	1	43.4	71	40	43	EC	400V	Standard	2045	833	1060
WRL 180 E	1	R410A	58.4	CSEX8013CTE 490 [rpm]	1	45.87	60	29	32	EC	400V	Standard	1883	1239	1338
				CSEX5023STD	1	52.58	79	48	51	AC	400V	Standard	2045	833	1060
				CSEX5025BTY	1	52.1	73	42	45	AC	400V	Standard	2045	833	1060
				CVSX5023STD	1	51.8	68	37	40	AC	400V	Standard	1519	778	1092
WRL 200 E	1	R410A	76.1	CSEX5023CTB 1380 [rpm]	1	51.47	77	46	49	EC	400V	Standard	2045	833	1060
				CSEX5024CTB 1160 [rpm]	1	53.27	73	42	45	EC	400V	Standard	2045	833	1060
				CSEX5025CTB 1040 [rpm]	1	52.91	71	40	43	EC	400V	Standard	2045	833	1060
				CSEX8013CTE 550 [rpm]	1	50.15	63	31	34	EC	400V	Standard	1883	1239	1338
WRL 300 E	1	R410A	88.1	CSEX5024STD	1	61.17	79	48	51	AC	400V	Standard	2045	833	1060
				CSEX6023STD	1	58.09	69	38	41	AC	400V	Standard	2290	1033	1213
				CVSX5033STD	1	59.17	62	31	34	AC	400V	Standard	2174	778	1092
				CSEX8013CTE 735 [rpm]	1	62.42	68	36	40	EC	400V	Standard	1883	1239	1338
WRL 400 E	1	R410A	99.9	CSEX8013CTE 670 [rpm]	1	58.06	66	35	38	EC	400V	Standard	1883	1239	1338
				CSEX6024STD	1	81.45	77	46	49	AC	400V	Standard	2290	1033	1213
				CVSX5033STD	1	77.71	70	38	41	AC	400V	Standard	2174	778	1092
				CSEX6034STD	1	78.89	65	33	36	AC	400V	Standard	3450	1033	1213
WRL 500 E	1	R410A	113.7	CSEX8013CTB 1020 [rpm]	1	78.94	79	48	51	EC	400V	Standard	1883	1239	1338
				CSEX8014CTB 880 [rpm]	1	80.23	76	44	47	EC	400V	Standard	1883	1239	1338
				CSEX8015CTB 810 [rpm]	1	79.51	74	43	46	EC	400V	Standard	1883	1239	1338
				CSEX1013CTS 610 [rpm]	1	78.91	73	41	44	EC	400V	Standard	2300	1259	1760
WRL 026 E	1	R410A	8.0	CSEX1014CTB 510 [rpm]	1	76.69	71	39	42	EC	400V	Standard	2300	1259	1760
				CSEX6025STD	1	87.65	77	46	49	AC	400V	Standard	2290	1033	1213
				CSEX5034STD	1	92.36	81	50	53	AC	400V	Standard	2985	833	1060
				CVSX5034BTY	1	93.27	75	43	46	AC	400V	Standard	2174	778	1092
WRL 031 E	1	R410A	9.8	CSEX6033STD	1	87.57	71	39	42	AC	400V	Standard	3450	1033	1213
				CSEX8014CTB 1020 [rpm]	1	89.65	79	48	51	EC	400V	Standard	1883	1239	1338
				CSEX1013CTS 750 [rpm]	1	89.67	77	46	49	EC	400V	Standard	2300	1259	1760
				CSEX1014CTS 610 [rpm]	1	89.16	73	41	44	EC	400V	Standard	2300	1259	1760
WRL 041 E	1	R410A	13.2	CSEX8023CTE 490 [rpm]	1	93.39	63	32	35	EC	400V	Standard	3548	1239	1338
				CVSX5033STD	1	105.12	81	50	53	AC	400V	Standard	2174	778	1092
				CSEX1013STD	1	102.16	82	50	53	AC	400V	Standard	2300	1259	1760
				CSEX6033STD	1	107.7	79	48	51	AC	400V	Standard	3450	1033	1213
WRL 051 E	1	R410A	17.0	CSEX6034BTY	1	106.71	74	42	45	AC	400V	Standard	3450	1033	1213
				CSEX8023STD	1	105.82	66	34	37	AC	400V	Standard	3548	1239	1338
				CSEX1013CTB 960 [rpm]	1	102.42	85	53	56	EC	400V	Standard	2300	1259	1760
				CSEX1014CTS 750 [rpm]	1	103.21	77	46	49	EC	400V	Standard	2300	1259	1760
WRL 071 E	1	R410A	21.9	CSEX8023CTE 550 [rpm]	1	102.12	66	34	37	EC	400V	Standard	3548	1239	1338
				CVSX5034STD	1	117.97	81	50	53	AC	400V	Standard	2174	778	1092
				CSEX6034STD	1	122.79	79	48	51	AC	400V	Standard	3450	1033	1213
				CSEX8023STD	1	121	70	38	41	AC	400V	Standard	3548	1239	1338
WRL 081 E	1	R410A	25.0	CVRX8023STD	1	122.19	66	34	37	AC	400V	Standard	2150	1100	1590
				CSEX1014CTB 885 [rpm]	1	113	83	51	54	EC	400V	Standard	2300	1259	1760
				CSEX8023CTE 670 [rpm]	1	118.23	69	38	41	EC	400V	Standard	3548	1239	1338



code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WRL 550 E	1	R410A	150.9	CSEX8024BTD	1	167.5	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX6045BTY	1	150.69	75	44	47	AC	400V	Standard	4835	1033	1213
				CVRX8024STD	1	151.49	70	38	42	AC	400V	Standard	2150	1100	1590
				CSEX8033STY	1	159.43	68	36	39	AC	400V	Standard	5213	1239	1338
				CSEX6064STY	1	157.78	68	36	39	AC	400V	Standard	3450	2066	1213
				CSEX8023CTB 950 [rpm]	1	153.51	80	49	52	EC	400V	Standard	3548	1239	1338
				CSEX8024CTB 810 [rpm]	1	153.58	77	46	49	EC	400V	Standard	3548	1239	1338
				CVRX8024CTE 735 [rpm]	1	159.92	71	40	43	EC	400V	Standard	2150	1100	1590
				CSEX8033CTE 550 [rpm]	1	153.78	67	36	39	EC	400V	Standard	5213	1239	1338
WRL 600 E	1	R410A	174.3	CSEX8025BTD	1	177.36	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX8033STD	1	182.17	72	40	43	AC	400V	Standard	5213	1239	1338
				CVRX8033STY	1	183.28	68	36	39	AC	400V	Standard	3120	1100	1590
				CSEX6083STY	1	196.4	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX8024CTB 1020 [rpm]	1	182.64	82	51	54	EC	400V	Standard	3548	1239	1338
				CVRX8023CTB 950 [rpm]	1	175.97	80	49	52	EC	400V	Standard	2150	1100	1590
				CVRX8024CTB 810 [rpm]	1	175.42	77	46	49	EC	400V	Standard	2150	1100	1590
				CSEX8033CTE 670 [rpm]	1	177.97	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8033CTE 550 [rpm]	1	174.41	67	36	39	EC	400V	Standard	3120	1100	1590
WRL 650 E	1	R410A	197.2	CSEX8033BTD	1	225.06	82	50	53	AC	400V	Standard	5213	1239	1338
				CSEX8034STD	1	199.31	72	40	43	AC	400V	Standard	5213	1239	1338
				CSEX8043STY	1	211.21	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6084STY	1	210.92	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX1023CTB 960 [rpm]	1	207.56	88	56	59	EC	400V	Standard	4600	1259	1760
				CVRX8024CTB 950 [rpm]	1	198.11	80	49	52	EC	400V	Standard	2150	1100	1590
				CSEX8034CTE 735 [rpm]	1	211.18	73	41	44	EC	400V	Standard	5213	1239	1338
				CSEX8035CTE 670 [rpm]	1	202.34	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8034CTE 610 [rpm]	1	204.42	69	38	41	EC	400V	Standard	3120	1100	1590
NXW 0500 E	2	R410A	129.9	CSEX8025BTD	1	177.36	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX8033STD	1	182.17	72	40	43	AC	400V	Standard	5213	1239	1338
				CVRX8033STY	1	183.28	68	36	39	AC	400V	Standard	3120	1100	1590
				CSEX6083STY	1	196.4	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX8024CTB 1020 [rpm]	1	182.64	82	51	54	EC	400V	Standard	3548	1239	1338
				CVRX8023CTB 950 [rpm]	1	175.97	80	49	52	EC	400V	Standard	2150	1100	1590
				CVRX8024CTB 810 [rpm]	1	175.42	77	46	49	EC	400V	Standard	2150	1100	1590
				CSEX8033CTE 670 [rpm]	1	177.97	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8033CTE 550 [rpm]	1	174.41	67	36	39	EC	400V	Standard	3120	1100	1590
NXW 0550 E	2	R410A	139.8	CSEX8033BTD	1	225.06	82	50	53	AC	400V	Standard	5213	1239	1338
				CSEX8034STD	1	199.31	72	40	43	AC	400V	Standard	5213	1239	1338
				CSEX8043STY	1	211.21	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6084STY	1	210.92	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX1023CTB 960 [rpm]	1	207.56	88	56	59	EC	400V	Standard	4600	1259	1760
				CVRX8024CTB 950 [rpm]	1	198.11	80	49	52	EC	400V	Standard	2150	1100	1590
				CSEX8034CTE 735 [rpm]	1	211.18	73	41	44	EC	400V	Standard	5213	1239	1338
				CSEX8035CTE 670 [rpm]	1	202.34	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8034CTE 610 [rpm]	1	204.42	69	38	41	EC	400V	Standard	3120	1100	1590
NXW 0600 E	2	R410A	172.0	CSEX8043CTE 550 [rpm]	1	203.85	69	37	40	EC	400V	Standard	3548	2389	1338
				CSEX8025BTD	1	177.36	80	48	51	AC	400V	Standard	3548	1239	1338
				CSEX8033STD	1	182.17	72	40	43	AC	400V	Standard	5213	1239	1338
				CVRX8033STY	1	183.28	68	36	39	AC	400V	Standard	3120	1100	1590
				CSEX6083ETD	1	171.61	65	33	36	AC	400V	Standard	4835	2066	1213
				CSEX8024CTB 950 [rpm]	1	173.23	80	49	52	EC	400V	Standard	3548	1239	1338
				CSEX1023CTS 680 [rpm]	1	171.06	78	46	49	EC	400V	Standard	4600	1259	1760
				CSEX8033CTE 670 [rpm]	1	177.97	71	39	42	EC	400V	Standard	5213	1239	1338
				CVRX8033CTE 550 [rpm]	1	174.41	67	36	39	EC	400V	Standard	3120	1100	1590
NXW 0650 E	2	R410A	192.9	CVRX8024BTD	1	192.81	80	48	51	AC	400V	Standard	2150	1100	1590
				CSEX8034STD	1	199.31	72	40	43	AC	400V	Standard	5213	1239	1338
				CSEX8043STY	1	211.21	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6083STY	1	196.4	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX8025CTB 1020 [rpm]	1	195.75	82	51	54	EC	400V	Standard	3548	1239	1338
				CVRX8024CTB 950 [rpm]	1	198.11	80	49	52	EC	400V	Standard	2150	1100	1590
				CSEX8034CTE 670 [rpm]	1	194.69	71	39	42	EC	400V	Standard	5213	1239	1338
				CSEX8043CTE 550 [rpm]	1	203.85	69	37	40	EC	400V	Standard	3548	2389	1338
				CSEX8044CTE 490 [rpm]	1	198.39	66	35	38	EC	400V	Standard	3548	2389	1338
NXW 0700 E	2	R410A	218.7	CSEX8033BTD	1	225.06	82	50	53	AC	400V	Standard	5213	1239	1338
				CVRX8033BTY	1	222.27	76	45	48	AC	400V	Standard	3120	1100	1590
				CSEX8043STD	1	241.43	73	41	44	AC	400V	Standard	3548	2389	1338
				CVRX8034STD	1	227.24	72	40	43	AC	400V	Standard	3120	1100	1590
				CSEX8044STY	1	225.55	69	37	40	AC	400V	Standard	3548	2389	1338
				CSEX6085STY	1	217.02	69	37	40	AC	400V	Standard	4835	2066	1213
				CSEX1024CTS 820 [rpm]	1	222.22	82	50	53	EC	400V	Standard	4600	1259	1760
				CSEX8033CTB 880 [rpm]	1	219.04	80	49	52	EC	400V	Standard	5213	1239	1338
				CSEX8035CTE 735 [rpm]	1	221.13	73	41	44	EC	400V	Standard	5213	1239	1338
				CVRX8034CTE 670 [rpm]	1	221.05	71	39	42	EC	400V	Standard	3120	1100	1590
				CSEX8043CTE 610 [rpm]	1	220.12	70	38	41	EC	400V	Standard	3548	2389	1338
				CSEX8044CTE 550 [rpm]	1	219.13	69	37	40	EC	400V	Standard	3548	2389	1338

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
NXW 0750 E	2	R410A	257.8	CSEX8035BTD	1	267.24	82	50	53	AC	400V	Standard	5213	1239	1338
				CVRX8033BTD	1	258.39	82	50	53	AC	400V	Standard	3120	1100	1590
				CSEX8044STD	1	264.13	73	41	44	AC	400V	Standard	3548	2389	1338
				CSEX8063STY	1	318.86	71	39	42	AC	400V	Standard	5213	2389	1338
				CVRX8053STY	1	304.93	70	38	41	AC	400V	Standard	5060	1100	1590
				CSEX8034CTB 950 [rpm]	1	260.76	82	51	54	EC	400V	Standard	5213	1239	1338
				CSEX8035CTB 880 [rpm]	1	261.37	80	49	52	EC	400V	Standard	5213	1239	1338
				CVRX8034CTB 810 [rpm]	1	263.14	79	47	50	EC	400V	Standard	3120	1100	1590
				CSEX8044CTE 670 [rpm]	1	258.07	72	40	43	EC	400V	Standard	3548	2389	1338
				CVRX8044CTE 610 [rpm]	1	272.19	70	39	42	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 490 [rpm]	1	281.31	68	36	39	EC	400V	Standard	5213	2389	1338
				CSEX8043BTD	1	298.22	83	51	54	AC	400V	Standard	3548	2389	1338
NXW 0800 E	2	R410A	297.5	CVRX8044STD	1	302.52	73	42	45	AC	400V	Standard	4090	1100	1590
				CSEX8063STY	1	318.86	71	39	42	AC	400V	Standard	5213	2389	1338
				CVRX8053STY	1	304.93	70	38	41	AC	400V	Standard	5060	1100	1590
				CVRX8034CTB 950 [rpm]	1	297.17	82	51	54	EC	400V	Standard	3120	1100	1590
				CSEX8044CTB 810 [rpm]	1	306.51	80	48	51	EC	400V	Standard	3548	2389	1338
				CVRX8044CTE 735 [rpm]	1	319.31	74	43	46	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 550 [rpm]	1	307.55	71	39	42	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 490 [rpm]	1	299.33	68	36	39	EC	400V	Standard	5213	2389	1338
				CVRX8043BTD	1	343.61	83	51	54	AC	400V	Standard	4090	1100	1590
				CSEX8063STD	1	364.33	75	43	46	AC	400V	Standard	5213	2389	1338
NXW 0900 E	2	R410A	337.7	CVRX8063STY	1	365.93	71	39	42	AC	400V	Standard	6030	1100	1590
				CSEX8044CTB 950 [rpm]	1	345.61	83	51	54	EC	400V	Standard	3548	2389	1338
				CVRX8044CTB 810 [rpm]	1	350.2	80	49	52	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 670 [rpm]	1	355.94	74	42	45	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 610 [rpm]	1	360.3	72	40	43	EC	400V	Standard	5213	2389	1338
				CVRX8063CTE 550 [rpm]	1	348.69	71	39	42	EC	400V	Standard	6030	1100	1590
				CVRX8064CTE 490 [rpm]	1	339.43	68	37	40	EC	400V	Standard	6030	1100	1590
				CVRX8074CTE 430 [rpm]	1	352.81	66	35	38	EC	400V	Standard	7000	1100	1590
				CVRX8044BTD	1	384.82	83	51	54	AC	400V	Standard	4090	1100	1590
				CSEX8063BTY	1	383.85	79	47	50	AC	400V	Standard	5213	2389	1338
NXW 1000 E	2	R410A	377.3	CSEX8064STD	1	398.62	75	43	46	AC	400V	Standard	5213	2389	1338
				CVRX8064STY	1	392.47	71	39	42	AC	400V	Standard	6030	1100	1590
				CSEX8045CTB 1020 [rpm]	1	390.68	85	53	56	EC	400V	Standard	3548	2389	1338
				CVRX8044CTB 950 [rpm]	1	395.38	83	52	55	EC	400V	Standard	4090	1100	1590
				CSEX8063CTE 735 [rpm]	1	382.66	76	44	47	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 670 [rpm]	1	389.38	74	42	45	EC	400V	Standard	5213	2389	1338
				CVRX8064CTE 610 [rpm]	1	408.29	72	41	44	EC	400V	Standard	6030	1100	1590
				CVRX8073CTE 550 [rpm]	1	406.81	71	40	43	EC	400V	Standard	7000	1100	1590
				CVRX8074CTE 490 [rpm]	1	396	69	37	40	EC	400V	Standard	7000	1100	1590
				CDRX8103CTE 430 [rpm]	1	421.2	68	36	39	EC	400V	Standard	5060	2160	2150
				CSEX8063BTD	1	450.12	85	53	56	AC	400V	Standard	5213	2389	1338
				CVRX8053BTD	1	429.52	84	52	55	AC	400V	Standard	5060	1100	1590
				CSEX8064BTY	1	417.9	79	47	50	AC	400V	Standard	5213	2389	1338
NXW 1250 E	2	R410A	410.8	CVRX8063STD	1	413.42	75	43	46	AC	400V	Standard	6030	1100	1590
				CDRX8083STY	1	422.56	72	40	43	AC	400V	Standard	4090	2160	2150
				CSEX1063STY	1	432.63	75	43	46	AC	400V	Standard	6900	2431	1760
				CVRX8044CTB 1020 [rpm]	1	416.79	85	54	57	EC	400V	Standard	4090	1100	1590
				CVRX8053CTB 880 [rpm]	1	415.32	83	51	54	EC	400V	Standard	5060	1100	1590
				CSEX8063CTB 810 [rpm]	1	415.09	82	50	53	EC	400V	Standard	5213	2389	1338
				CSEX8064CTE 735 [rpm]	1	422.36	76	44	47	EC	400V	Standard	5213	2389	1338
				CVRX8064CTE 670 [rpm]	1	440.82	74	42	45	EC	400V	Standard	6030	1100	1590
				CVRX8073CTE 610 [rpm]	1	439.08	73	41	44	EC	400V	Standard	7000	1100	1590
				CVRX8074CTE 550 [rpm]	1	437.38	71	40	43	EC	400V	Standard	7000	1100	1590
				CMVX8081CTE 550 [rpm]	1	427.12	72	40	43	EC	400V	Microchannel	4640	2255	2000
				CDRX8103CTE 430 [rpm]	1	421.2	68	36	39	EC	400V	Standard	5060	2160	2150
				CSEX8063BTD	1	450.12	85	53	56	AC	400V	Standard	5213	2389	1338
				CVRX8054BTD	1	481.03	84	52	55	AC	400V	Standard	5060	1100	1590
				CVRX8064STD	1	452.95	75	43	46	AC	400V	Standard	6030	1100	1590
NXW 1400 E	2	R410A	445.3	CSEX1064STY	1	478.66	75	43	46	AC	400V	Standard	6900	2431	1760
				CVRX8053CTB 1020 [rpm]	1	459.88	86	55	58	EC	400V	Standard	5060	1100	1590
				CSEX8063CTB 950 [rpm]	1	461.88	85	53	56	EC	400V	Standard	5213	2389	1338
				CVRX8054CTB 880 [rpm]	1	465.13	83	51	54	EC	400V	Standard	5060	1100	1590
				CSEX8064CTB 810 [rpm]	1	462.5	82	50	53	EC	400V	Standard	5213	2389	1338
				CSEX8065CTB 740 [rpm]	1	452.14	80	48	51	EC	400V	Standard	5213	2389	1338
				CVRX8064CTE 735 [rpm]	1	477.47	76	44	47	EC	400V	Standard	6030	1100	1590
				CVRX8073CTE 670 [rpm]	1	470.08	75	43	46	EC	400V	Standard	7000	1100	1590
				CVRX8074CTE 610 [rpm]	1	476.33	73	41	44	EC	400V	Standard	7000	1100	1590
				CDRX8103CTE 490 [rpm]	1	467.18	70	39	42	EC	400V	Standard	5060	2160	2150
				CGAX1084CTS 330 [rpm]	1	461.61	69	37	40	EC	400V	Standard	5730	2448	2410
				CMVX8121CTE 370 [rpm]	1	455.52	66	34	37	EC	400V	Microchannel	6960	2255	2000

code	number of circuits	refrigerant	disipated heating capacity Water temp. 7°C-12 °C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Disipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WSA 0701 E	1	R134a	204.0	CSE*8034BTD	1	217.29	82	50	53	AC	400V	Standard	5213	1239	1338
				CSE*8043STD	1	208.66	73	41	44	AC	400V	Standard	3548	2389	1338
				CVR*8043STY	1	212.35	69	37	40	AC	400V	Standard	4090	1100	1590
				CSE*1034STY	1	210.18	72	41	44	AC	400V	Standard	6900	1259	1760
				CSE*8033CTB 1020 [rpm]	1	205.49	84	53	56	EC	400V	Standard	5213	1239	1338
				CSE*1024CTB 960 [rpm]	1	207.83	88	56	59	EC	400V	Standard	4600	1259	1760
				CSE*8034CTB 880 [rpm]	1	212.14	80	49	52	EC	400V	Standard	5213	1239	1338
				CSE*8035CTB 810 [rpm]	1	211.47	79	47	50	EC	400V	Standard	5213	1239	1338
				CVR*8034CTE 735 [rpm]	1	208.49	73	41	44	EC	400V	Standard	3120	1100	1590
				CSE*8043CTE 670 [rpm]	1	204.09	72	40	43	EC	400V	Standard	3548	2389	1338
				CSE*8044CTE 610 [rpm]	1	207.59	70	38	41	EC	400V	Standard	3548	2389	1338
				CVR*8044CTE 550 [rpm]	1	217.21	69	37	40	EC	400V	Standard	4090	1100	1590
				CVR*8034BTD	1	250.3	82	50	53	AC	400V	Standard	3120	1100	1590
				CSE*8044BTY	1	239.9	78	46	49	AC	400V	Standard	3548	2389	1338
WSA 0801 E	1	R134a	239.0	CSE*8045STD	1	238.05	73	41	44	AC	400V	Standard	3548	2389	1338
				CVR*8053STY	1	265.44	70	38	41	AC	400V	Standard	5060	1100	1590
				CSE*8035CTB 950 [rpm]	1	240.31	82	51	54	EC	400V	Standard	5213	1239	1338
				CVR*8034CTB 880 [rpm]	1	242.26	80	49	52	EC	400V	Standard	3120	1100	1590
				CSE*8044CTE 735 [rpm]	1	242.63	74	42	45	EC	400V	Standard	3548	2389	1338
				CVR*8044CTE 670 [rpm]	1	255.94	72	41	44	EC	400V	Standard	4090	1100	1590
				CSE*8063CTE 490 [rpm]	1	244.99	68	36	39	EC	400V	Standard	5213	2389	1338
				CSE*8044BTD	1	287.85	83	51	54	AC	400V	Standard	3548	2389	1338
				CVR*8044STD	1	263.02	73	42	45	AC	400V	Standard	4090	1100	1590
				CSE*8063STY	1	276.9	71	39	42	AC	400V	Standard	5213	2389	1338
				CVR*8034CTB 1020 [rpm]	1	270.36	84	53	56	EC	400V	Standard	3120	1100	1590
				CSE*1033CTS 820 [rpm]	1	267.7	84	52	55	EC	400V	Standard	6900	1259	1760
				CSE*8044CTB 880 [rpm]	1	281.15	82	50	53	EC	400V	Standard	3548	2389	1338
				CVR*8043CTB 810 [rpm]	1	271.87	80	49	52	EC	400V	Standard	4090	1100	1590
WSA 0901 E	1	R134a	266.0	CVR*8044CTE 735 [rpm]	1	277.43	74	43	46	EC	400V	Standard	4090	1100	1590
				CSE*8063CTE 550 [rpm]	1	267.34	71	39	42	EC	400V	Standard	5213	2389	1338
				CVR*8063CTE 490 [rpm]	1	278.04	68	37	40	EC	400V	Standard	6030	1100	1590
				CVR*8073CTE 430 [rpm]	1	292.4	66	35	38	EC	400V	Standard	7000	1100	1590
				CVR*8044BTD	1	332.87	83	51	54	AC	400V	Standard	4090	1100	1590
				CSE*8063BTY	1	331.02	79	47	50	AC	400V	Standard	5213	2389	1338
				CSE*8064STD	1	346	75	43	46	AC	400V	Standard	5213	2389	1338
				CVR*8064STY	1	341.35	71	39	42	AC	400V	Standard	6030	1100	1590
				CSE*8045CTB 1020 [rpm]	1	336.73	85	53	56	EC	400V	Standard	3548	2389	1338
				CVR*8044CTB 950 [rpm]	1	341.68	83	52	55	EC	400V	Standard	4090	1100	1590
				CSE*8063CTE 735 [rpm]	1	330.05	76	44	47	EC	400V	Standard	5213	2389	1338
				CSE*8064CTE 670 [rpm]	1	338.14	74	42	45	EC	400V	Standard	5213	2389	1338
				CVR*8064CTE 610 [rpm]	1	355.13	72	41	44	EC	400V	Standard	6030	1100	1590
				CVR*8073CTE 550 [rpm]	1	354.41	71	40	43	EC	400V	Standard	7000	1100	1590
				CVR*8074CTE 490 [rpm]	1	343.97	69	37	40	EC	400V	Standard	7000	1100	1590
WSA 1402 E	2	R134a	408.0	CSE*8064BTD	1	434.57	85	53	56	AC	400V	Standard	5213	2389	1338
				CVR*8054BTD	1	416.09	84	52	55	AC	400V	Standard	5060	1100	1590
				CVR*8064BTY	1	419.68	79	48	51	AC	400V	Standard	6030	1100	1590
				CDR*8083STD	1	417.5	76	44	47	AC	400V	Standard	4090	2160	2150
				CSE*1064STY	1	420.36	75	43	46	AC	400V	Standard	6900	2431	1760
				CSE*8063CTB 1020 [rpm]	1	410.99	87	55	58	EC	400V	Standard	5213	2389	1338
				CVR*8054CTB 950 [rpm]	1	427.1	84	53	56	EC	400V	Standard	5060	1100	1590
				CSE*8064CTB 880 [rpm]	1	424.28	83	52	55	EC	400V	Standard	5213	2389	1338
				CSE*8065CTB 810 [rpm]	1	422.95	82	50	53	EC	400V	Standard	5213	2389	1338
				CVR*8064CTE 735 [rpm]	1	414.91	76	44	47	EC	400V	Standard	6030	1100	1590
				CVR*8073CTE 670 [rpm]	1	408.38	75	43	46	EC	400V	Standard	7000	1100	1590
				CVR*8074CTE 610 [rpm]	1	414.32	73	41	44	EC	400V	Standard	7000	1100	1590
				CDR*8104CTE 490 [rpm]	1	432.47	70	39	42	EC	400V	Standard	5060	2160	2150
				CGA*1103CTS 330 [rpm]	1	479.27	70	38	41	EC	400V	Standard	7140	2448	2410
				CMV*8121CTE 430 [rpm]	1	449.88	69	37	40	EC	400V	Microchannel	6960	2255	2000
				CMV*8161CTE 320 [rpm]	1	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
				CVR*8064BTD	1	495.49	85	53	56	AC	400V	Standard	6030	1100	1590
				CVR*8074BTY	1	489.63	80	49	52	AC	400V	Standard	7000	1100	1590
				CSE*1083STY	1	521.35	77	45	48	AC	400V	Standard	9200	2431	1760
WSA 1602 E	2	R134a	478.0	CSE*8065CTB 950 [rpm]	1	480.62	85	53	56	EC	400V	Standard	5213	2389	1338
				CVR*8064CTB 880 [rpm]	1	479.97	83	52	55	EC	400V	Standard	6030	1100	1590
				CVR*8074CTE 735 [rpm]	1	484.07	76	45	48	EC	400V	Standard	7000	1100	1590
				CDR*8103CTE 610 [rpm]	1	477.8	74	42	45	EC	400V	Standard	5060	2160	2150
				CDR*8104CTE 550 [rpm]	1	477.46	73	41	44	EC	400V	Standard	5060	2160	2150
				CGA*1103CTS 330 [rpm]	1	479.27	70	38	41	EC	400V	Standard	7140	2448	2410
				CMV*8161CTE 370 [rpm]	1	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
				CSE*1063BTD	1	579.19	90	58	61	AC	400V	Standard	6900	2431	1760
				CVR*8074BTD	1	578.08	85	54	57	AC	400V	Standard	7000	1100	1590
				CSE*1084STY	1	561.32	77	45	48	AC	400V	Standard	9200	2431	1760
WSA 1802 E	2	R134a	536.0	CVR*8064CTB 1020 [rpm]	1	533.41	87	56	59	EC	400V	Standard	6030	1100	1590
				CSE*1063CTS 820 [rpm]	1	535.41	87	55	58	EC	400V	Standard	6900	2431	1760
				CVR*8074CTB 880 [rpm]	1	559.97	84	53	56	EC	400V	Standard	7000	1100	1590
				CDR*8084CTB 810 [rpm]	1	530.29	83	51	54	EC	400V	Standard	4090	2160	2150
				CDR*8103CTE 735 [rpm]	1	547.09	78	46	49	EC	400V	Standard	5060	2160	2150
				CDR*8104CTE 670 [rpm]	1	561.01	76	44	47	EC	400V	Standard	5060	2160	2150
				CGA*1103CTS 400 [rpm]	1	557.24	74	42	45	EC	400V	Standard	7140	2448	2410
				CGA*1123CTS 330 [rpm]	1	575.12	70	38	41	EC	400V	Standard	8550	2448	2410
				CMV*8201CTE 320 [rpm]	1	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000



code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WSA 2202 E	2	R134a	601.0	CSE*10648TD	1	662.03	90	58	61	AC	400V	standard	6900	2431	1760
				CSE*1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CDR*8104BTY	1	598.96	82	50	53	AC	400V	standard	5060	2160	2150
				CMV*8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA*1084STY	1	578.49	77	45	48	AC	400V	standard	5730	2448	2410
				CVR*8074CTB 1020 [rpm]	1	622.31	88	56	59	EC	400V	standard	7000	1100	1590
				CDR*8084CTB 950 [rpm]	1	594.58	86	54	57	EC	400V	standard	4090	2160	2150
				CSE*1083CTS 680 [rpm]	1	628.76	84	52	55	EC	400V	standard	9200	2431	1760
				CDR*8104CTE 735 [rpm]	1	607.29	78	46	49	EC	400V	standard	5060	2160	2150
				CMV*8121CTE 610 [rpm]	1	608.04	75	43	46	EC	400V	Microchannel	6960	2255	2000
				CGA*1123CTS 400 [rpm]	1	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 430 [rpm]	1	599.84	70	38	41	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 370 [rpm]	1	660.2	68	36	39	EC	400V	Microchannel	11600	2255	2000
				CSE*1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
WSA 2202 E	2	R134a	671.0	CMV*8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA*1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE*1083CTS 750 [rpm]	1	668.3	86	54	57	EC	400V	standard	9200	2431	1760
				CSE*1084CTS 680 [rpm]	1	701.83	84	52	55	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 735 [rpm]	1	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA*1104CTS 470 [rpm]	1	676.98	77	45	48	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 400 [rpm]	1	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 490 [rpm]	1	671.84	73	41	44	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 370 [rpm]	1	660.2	68	36	39	EC	400V	Microchannel	11600	2255	2000
				CSE*1083STD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE*1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA*1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
				CSE*1083CTB 960 [rpm]	1	763.22	94	62	65	EC	400V	standard	9200	2431	1760
WSA 2502 E	2	R134a	747.0	CDR*8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*10848TD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*81218TD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA*1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE*1084CTB 960 [rpm]	1	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA*1084CTB 960 [rpm]	1	872.25	94	62	65	EC	400V	standard	5730	2448	2410
				CSE*1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 750 [rpm]	1	871.9	87	55	58	EC	400V	standard	7140	2448	2410
WSA 2802 E	2	R134a	835.0	CGA*1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 670 [rpm]	1	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*80338TD	1	192.26	82	50	53	AC	400V	standard	5213	1239	1338
				CSE*80348TD	1	217.29	82	50	53	AC	400V	standard	5213	1239	1338
				CVR*80338TY	1	192.56	76	45	48	AC	400V	standard	3120	1100	1590
				CSE*8043STD	1	208.66	73	41	44	AC	400V	standard	3548	2389	1338
				CVR*8034STD	1	197.63	72	40	43	AC	400V	standard	3120	1100	1590
				CVR*8043STY	1	212.35	69	37	40	AC	400V	standard	4090	1100	1590
				CSE*8045STY	1	198.79	69	37	40	AC	400V	standard	3548	2389	1338
				CSE*8033CTB 950 [rpm]	1	196.9	82	51	54	EC	400V	standard	5213	1239	1338
				CSE*1024CTS 820 [rpm]	1	190.66	82	50	53	EC	400V	standard	4600	1259	1760
				CSE*8035CTE 735 [rpm]	1	191.83	73	41	44	EC	400V	standard	5213	1239	1338
				CVR*8034CTE 670 [rpm]	1	192.29	71	39	42	EC	400V	standard	3120	1100	1590
WSB 0701 E	1	R134a	196.0	CSE*8043CTE 610 [rpm]	1	190.9	70	38	41	EC	400V	standard	3548	2389	1338
				CSE*8044CTE 550 [rpm]	1	190.64	69	37	40	EC	400V	standard	3548	2389	1338
				CVR*8043CTE 550 [rpm]	1	202.27	69	37	40	EC	400V	standard	4090	1100	1590
				CVR*8044CTE 490 [rpm]	1	196.34	66	35	38	EC	400V	standard	4090	1100	1590
				CSE*80358TD	1	231.09	82	50	53	AC	400V	standard	5213	1239	1338
				CSE*8044STD	1	229.25	73	41	44	AC	400V	standard	3548	2389	1338
				CSE*6084STD	1	225.56	75	43	46	AC	400V	standard	4835	2066	1213
				CVR*8053STY	1	265.44	70	38	41	AC	400V	standard	5060	1100	1590
				CSE*8034CTB 1020 [rpm]	1	235.74	84	53	56	EC	400V	standard	5213	1239	1338
				CSE*8035CTB 950 [rpm]	1	240.31	82	51	54	EC	400V	standard	5213	1239	1338
				CSE*8035CTB 880 [rpm]	1	226.14	80	49	52	EC	400V	standard	5213	1239	1338
				CVR*8034CTB 810 [rpm]	1	228.32	79	47	50	EC	400V	standard	3120	1100	1590
				CSE*8044CTE 735 [rpm]	1	242.63	74	42	45	EC	400V	standard	3548	2389	1338
				CVR*8043CTE 670 [rpm]	1	233.78	72	41	44	EC	400V	standard	4090	1100	1590
				CSE*8045CTE 670 [rpm]	1	232.73	72	40	43	EC	400V	standard	3548	2389	1338
WSB 0801 E	1	R134a	231.0	CVR*8044CTE 610 [rpm]	1	236.82	70	39	42	EC	400V	standard	4090	1100	1590
				CSE*8063CTE 490 [rpm]	1	244.99	68	36	39	EC	400V	standard	5213	2389	1338

## Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C. Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C. Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WSB 0901 E	1	R134a	260.0	CSE*80448TD	1	287.85	83	51	54	AC	400V	standard	3548	2389	1338
				CVR*8043BTY	1	256.03	78	46	49	AC	400V	standard	4090	1100	1590
				CSE*8063STY	1	276.9	71	39	42	AC	400V	standard	5213	2389	1338
				CSE*1043STY	1	260.68	74	42	45	AC	400V	standard	9200	1259	1760
				CVR*8034CTB 950 [rpm]	1	256.95	82	51	54	EC	400V	standard	3120	1100	1590
				CSE*8044CTB 810 [rpm]	1	264.93	80	48	51	EC	400V	standard	3548	2389	1338
				CVR*8043CTB 740 [rpm]	1	255.76	78	47	50	EC	400V	standard	4090	1100	1590
				CVR*8044CTE 670 [rpm]	1	255.94	72	41	44	EC	400V	standard	4090	1100	1590
				CSE*8063CTE 550 [rpm]	1	267.34	71	39	42	EC	400V	standard	5213	2389	1338
				CSE*8064CTE 490 [rpm]	1	260.45	68	36	39	EC	400V	standard	5213	2389	1338
WSB 1101 E	1	R134a	324.0	CVR*80448TD	1	332.87	83	51	54	AC	400V	standard	4090	1100	1590
				CSE*8064STD	1	346	75	43	46	AC	400V	standard	5213	2389	1338
				CVR*8064STY	1	341.35	71	39	42	AC	400V	standard	6030	1100	1590
				CSE*8045CTB 1020 [rpm]	1	336.73	85	53	56	EC	400V	standard	3548	2389	1338
				CVR*8044CTB 880 [rpm]	1	322.21	82	50	53	EC	400V	standard	4090	1100	1590
				CSE*8063CTE 735 [rpm]	1	330.05	76	44	47	EC	400V	standard	5213	2389	1338
				CSE*8064CTE 670 [rpm]	1	338.14	74	42	45	EC	400V	standard	5213	2389	1338
				CVR*8063CTE 610 [rpm]	1	327.47	72	41	44	EC	400V	standard	6030	1100	1590
				CVR*8064CTE 550 [rpm]	1	325.98	71	39	42	EC	400V	standard	6030	1100	1590
				CVR*8073CTE 490 [rpm]	1	324.38	69	37	40	EC	400V	standard	7000	1100	1590
WSB 1402 E	2	R134a	393.0	CSE*80648TD	1	434.57	85	53	56	AC	400V	standard	5213	2389	1338
				CVR*80548TD	1	416.09	84	52	55	AC	400V	standard	5060	1100	1590
				CVR*8064STD	1	393.82	75	43	46	AC	400V	standard	6030	1100	1590
				CVR*8053CTB 1020 [rpm]	1	393.81	86	55	58	EC	400V	standard	5060	1100	1590
				CSE*8063CTB 950 [rpm]	1	393.8	85	53	56	EC	400V	standard	5213	2389	1338
				CVR*8054CTB 880 [rpm]	1	402.76	83	51	54	EC	400V	standard	5060	1100	1590
				CSE*8064CTB 810 [rpm]	1	399.83	82	50	53	EC	400V	standard	5213	2389	1338
				CVR*8064CTE 735 [rpm]	1	414.91	76	44	47	EC	400V	standard	6030	1100	1590
				CVR*8073CTE 670 [rpm]	1	408.38	75	43	46	EC	400V	standard	7000	1100	1590
				CVR*8074CTE 610 [rpm]	1	414.32	73	41	44	EC	400V	standard	7000	1100	1590
				CDR*8103CTE 490 [rpm]	1	406.66	70	39	42	EC	400V	standard	5060	2160	2150
				CGA*1084CTS 330 [rpm]	1	401.99	69	37	40	EC	400V	standard	5730	2448	2410
				CMV*8121CTE 370 [rpm]	1	396.12	66	34	37	EC	400V	Microchannel	6960	2255	2000
				CMV*8161CTE 320 [rpm]	1	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
				CSE*80658TD	1	462.19	85	53	56	AC	400V	standard	5213	2389	1338
				CVR*8074STD	1	459.46	75	44	47	AC	400V	standard	7000	1100	1590
WSB 1602 E	2	R134a	457.0	CSE*1083STY	1	521.35	77	45	48	AC	400V	standard	9200	2431	1760
				CSE*8064CTB 1020 [rpm]	1	471.48	87	55	58	EC	400V	standard	5213	2389	1338
				CSE*8065CTB 880 [rpm]	1	452.28	83	52	55	EC	400V	standard	5213	2389	1338
				CVR*8064CTB 810 [rpm]	1	453.24	82	50	53	EC	400V	standard	6030	1100	1590
				CVR*8074CTE 735 [rpm]	1	484.07	76	45	48	EC	400V	standard	7000	1100	1590
				CDR*8103CTE 610 [rpm]	1	477.8	74	42	45	EC	400V	standard	5060	2160	2150
				CDR*8104CTE 550 [rpm]	1	477.46	73	41	44	EC	400V	standard	5060	2160	2150
				CGA*1103CTS 330 [rpm]	1	479.27	70	38	41	EC	400V	standard	7140	2448	2410
				CMV*8161CTE 320 [rpm]	1	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
				CVR*80738TD	1	511.48	85	54	57	AC	400V	standard	7000	1100	1590
WSB 1802 E	2	R134a	517.0	CSE*1063BTY	1	517.58	86	54	57	AC	400V	standard	6900	2431	1760
				CSE*1083STY	1	521.35	77	45	48	AC	400V	standard	9200	2431	1760
				CVR*8064CTB 1020 [rpm]	1	533.41	87	56	59	EC	400V	standard	6030	1100	1590
				CVR*8073CTB 950 [rpm]	1	521.25	86	54	57	EC	400V	standard	7000	1100	1590
				CVR*8074CTB 810 [rpm]	1	528.79	83	51	54	EC	400V	standard	7000	1100	1590
				CDR*8103CTE 670 [rpm]	1	510.69	76	44	47	EC	400V	standard	5060	2160	2150
				CDR*8104CTE 610 [rpm]	1	519.84	74	42	45	EC	400V	standard	5060	2160	2150
				CGA*1123CTS 330 [rpm]	1	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 370 [rpm]	1	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
				CSE*10638TD	1	579.19	90	58	61	AC	400V	standard	6900	2431	1760
WSB 2202 E	2	R134a	585.0	CVR*80748TD	1	578.08	85	54	57	AC	400V	standard	7000	1100	1590
				CDR*8104BTY	1	598.96	82	50	53	AC	400V	standard	5060	2160	2150
				CMV*8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CMV*8121STY	1	579.96	74	42	45	AC	400V	Microchannel	6960	2255	2000
				CSE*1063CTB 960 [rpm]	1	582.63	93	61	64	EC	400V	standard	6900	2431	1760
				CVR*8074CTB 950 [rpm]	1	592.68	86	54	57	EC	400V	standard	7000	1100	1590
				CSE*1083CTS 610 [rpm]	1	586.36	82	50	53	EC	400V	standard	9200	2431	1760
				CDR*8104CTE 735 [rpm]	1	607.29	78	46	49	EC	400V	standard	5060	2160	2150
				CGA*1103CTS 470 [rpm]	1	632.94	77	45	48	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 610 [rpm]	1	608.04	75	43	46	EC	400V	Microchannel	6960	2255	2000
				CGA*1123CTS 330 [rpm]	1	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 320 [rpm]	1	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
WSB 2202 E	2	R134a	652.0	CSE*10648TD	1	662.03	90	58	61	AC	400V	standard	6900	2431	1760
				CSE*1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV*8121STD	1	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA*1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE*1064CTB 960 [rpm]	1	670.24	93	61	64	EC	400V	standard	6900	2431	1760
				CSE*1083CTS 750 [rpm]	1	668.3	86	54	57	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 810 [rpm]	1	662.87	84	52	55	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 610 [rpm]	1	646.72	82	50	53	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 670 [rpm]	1	657.96	77	45	48	EC	400V	Microchannel	6960	2255	2000
				CGA*1123CTS 400 [rpm]	1	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 490 [rpm]	1	671.84	73	41	44	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WSB 2502 E	2	R134a	740.0	CSE*1083BTD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE*1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA*1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
				CSE*1083CTB 960 [rpm]	1	763.22	94	62	65	EC	400V	standard	9200	2431	1760
				CGA*1083CTB 960 [rpm]	1	738.02	94	62	65	EC	400V	standard	5730	2448	2410
				CDR*8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
WSB 2802 E	2	R134a	824.0	CSE*1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA*1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE*1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 680 [rpm]	1	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 610 [rpm]	1	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 550 [rpm]	1	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000
				CMV*8201CTB 460 [rpm]	1	810	75	43	46	EC	400V	Microchannel	11600	2255	2000
				CMV*8121CTE 430 [rpm]	2	449.88	69	37	40	EC	400V	Microchannel	6960	2255	2000
				CMV*8161CTE 320 [rpm]	2	469.28	65	33	36	EC	400V	Microchannel	9280	2255	2000
WF 2512 E	2	R134a	690.0	CSE*1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV*8121BTY	1	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
				CGA*1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE*1083CTS 820 [rpm]	1	704.96	88	56	59	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 880 [rpm]	1	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 680 [rpm]	1	701.83	84	52	55	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 735 [rpm]	1	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA*1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
WF 2812 E	2	R134a	786.0	CMV*8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA*1084BTY	1	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CDR*8104CTB 1020 [rpm]	1	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 820 [rpm]	1	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CMV*8121CTB 810 [rpm]	1	780.6	85	53	56	EC	400V	Microchannel	6960	2255	2000
				CGA*1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 610 [rpm]	1	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CMV*8201CTB 460 [rpm]	1	810	75	43	46	EC	400V	Microchannel	11600	2255	2000
				CGA*1103BTD	1	993.44	92	60	63	AC	400V	standard	7140	2448	2410
				CGA*1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
WF 3212 E	2	R134a	943.0	CMV*8161BTY	1	956	84	52	55	AC	400V	Microchannel	9280	2255	2000
				CGA*1103CTB 885 [rpm]	1	944.34	93	61	64	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 750 [rpm]	1	980.55	87	55	58	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 680 [rpm]	1	983.49	86	54	57	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 735 [rpm]	1	952	80	48	51	EC	400V	Microchannel	9280	2255	2000
				CGA*1124CTS 610 [rpm]	1	1008.52	84	52	55	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 610 [rpm]	1	1013.4	77	45	48	EC	400V	Microchannel	11600	2255	2000
				CGA*1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CGA*1124BTY	1	1200.99	89	57	60	AC	400V	standard	8550	2448	2410
				CMV*8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA*1104CTB 885 [rpm]	1	1077.46	93	61	64	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 820 [rpm]	1	1104.56	90	58	61	EC	400V	standard	8550	2448	2410
WF 3612 E	2	R134a	1063.0	CGA*1124CTS 680 [rpm]	1	1095.03	86	54	57	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 670 [rpm]	1	1096.6	79	47	50	EC	400V	Microchannel	11600	2255	2000
				CGA*1103CTS 400 [rpm]	2	557.24	74	42	45	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
				CGA*1124BTD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
				CGA*1124BTY	1	1200.99	89	57	60	AC	400V	standard	8550	2448	2410
				CGA*1124CTS 820 [rpm]	1	1253.69	90	58	61	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 740 [rpm]	1	1215.2	85	53	56	EC	400V	Microchannel	11600	2255	2000
				CVR*8074CTB 1020 [rpm]	2	622.31	88	56	59	EC	400V	standard	7000	1100	1590
				CSE*1064CTS 820 [rpm]	2	606.67	87	55	58	EC	400V	standard	6900	2431	1760
				CSE*1083CTS 680 [rpm]	2	628.76	84	52	55	EC	400V	standard	9200	2431	1760
WF 4212 E	2	R134a	1201.0	CDR*8104CTB 740 [rpm]	2	619.52	82	50	53	EC	400V	standard	5060	2160	2150
				CGA*1103CTS 470 [rpm]	2	632.94	77	45	48	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 400 [rpm]	2	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 320 [rpm]	2	600	68	36	39	EC	400V	Microchannel	11600	2255	2000



## Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WF 4812 E	2	R134a	1356.0	CGA*11248TD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
				CMV*8201BTD	1	1416.6	90	58	61	AC	400V	Microchannel	11600	2255	2000
				CGA*1124CTB 960 [rpm]	1	1379.45	96	64	67	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 880 [rpm]	1	1376.8	89	57	60	EC	400V	Microchannel	11600	2255	2000
				CDR*8104CTB 880 [rpm]	2	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CGA*1103CTB 585 [rpm]	2	728.78	84	52	55	EC	400V	standard	7140	2448	2410
				CMV*8121CTB 740 [rpm]	2	729.12	83	51	54	EC	400V	Microchannel	6960	2255	2000
				CGA*1104CTB 510 [rpm]	2	715.33	81	49	52	EC	400V	standard	7140	2448	2410
				CGA*1123CTB 435 [rpm]	2	703.87	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTB 530 [rpm]	2	736	77	45	48	EC	400V	Microchannel	9280	2255	2000
WF 5612 E	2	R134a	1521.0	CMV*8201CTB 390 [rpm]	2	703.4	72	40	43	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTY	2	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA*1123STY	2	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CGA*1103CTS 610 [rpm]	2	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CMV*8201CTB 1020 [rpm]	1	1516.8	92	60	63	EC	400V	Microchannel	11600	2255	2000
				CGA*1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
WF 6412 E	2	R134a	1673.0	CGA*1124STY	2	876.48	78	46	49	AC	400V	standard	8550	2448	2410
				CSE*1084CTB 960 [rpm]	2	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*1083BTD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE*1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA*1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
WF 2512 AE	2	R134a	728.0	CSE*1083CTB 960 [rpm]	1	763.22	94	62	65	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
WF 2812 AE	2	R134a	827.0	CGA*1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE*1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 750 [rpm]	1	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 670 [rpm]	1	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CGA*1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV*8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA*1103CTB 960 [rpm]	1	997.39	95	63	66	EC	400V	standard	7140	2448	2410
WF 3212 AE	2	R134a	995.0	CGA*1104CTS 820 [rpm]	1	1044.74	89	57	60	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 750 [rpm]	1	1046.28	88	56	59	EC	400V	standard	8550	2448	2410
				CGA*1124CTS 610 [rpm]	1	1008.52	84	52	55	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 610 [rpm]	1	1013.4	77	45	48	EC	400V	Microchannel	11600	2255	2000
				CGA*1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CMV*8161BTD	1	1133.28	89	57	60	AC	400V	Microchannel	9280	2255	2000
				CMV*8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA*1104CTB 960 [rpm]	1	1149.54	95	63	66	EC	400V	standard	7140	2448	2410
WF 3612 AE	2	R134a	1120.0	CGA*1123CTB 885 [rpm]	1	1133.21	94	62	65	EC	400V	standard	8550	2448	2410
				CGA*1124CTS 820 [rpm]	1	1253.69	90	58	61	EC	400V	standard	8550	2448	2410
				CGA*1124CTS 750 [rpm]	1	1176.65	88	56	59	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 735 [rpm]	1	1190	81	49	52	EC	400V	Microchannel	11600	2255	2000
				CDR*8104CTE 670 [rpm]	2	561.01	76	44	47	EC	400V	standard	5060	2160	2150
				CMV*8121CTE 610 [rpm]	2	608.04	75	43	46	EC	400V	Microchannel	6960	2255	2000
				CGA*1104CTS 400 [rpm]	2	585.06	74	42	45	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
				CGA*1124BTD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
WF 4212 AE	2	R134a	1264.0	CMV*8201BTD	1	1416.6	90	58	61	AC	400V	Microchannel	11600	2255	2000
				CGA*1124CTB 885 [rpm]	1	1292.95	94	62	65	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 810 [rpm]	1	1301	87	55	58	EC	400V	Microchannel	11600	2255	2000
				CDR*8104CTB 810 [rpm]	2	662.87	84	52	55	EC	400V	standard	5060	2160	2150
				CGA*1103CTB 510 [rpm]	2	663.65	81	49	52	EC	400V	standard	7140	2448	2410
				CGA*1123CTB 435 [rpm]	2	703.87	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTB 460 [rpm]	2	648	74	42	45	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTB 390 [rpm]	2	703.4	72	40	43	EC	400V	Microchannel	11600	2255	2000

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
WF 4812 AE	2	R134a	1428.0	CSE*1083BTD	2	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CDR*8104BTD	2	719.42	87	55	58	AC	400V	standard	5060	2160	2150
				CMV*8121BTY	2	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
				CMV*8201CTB 950 [rpm]	1	1452	90	58	61	EC	400V	Microchannel	11600	2255	2000
				CSE*1083CTB 885 [rpm]	2	723.13	92	60	63	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 950 [rpm]	2	743.22	87	55	58	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 750 [rpm]	2	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 610 [rpm]	2	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 735 [rpm]	2	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA*1123CTS 470 [rpm]	2	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	2	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
WF 5612 AE	2	R134a	1559.0	CGA*1084BTY	2	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CDR*8104CTB 1020 [rpm]	2	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 820 [rpm]	2	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 680 [rpm]	2	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CGA*1103BTY	2	894.53	88	56	59	AC	400V	standard	7140	2448	2410
				CMV*8161STD	2	900.8	79	47	50	AC	400V	Microchannel	9280	2255	2000
				CSE*1084CTB 960 [rpm]	2	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 680 [rpm]	2	912.52	85	53	56	EC	400V	standard	7140	2448	2410
WF 6412 AE	2	R134a	1728.0	CGA*1123CTS 610 [rpm]	2	916.4	84	52	55	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 550 [rpm]	2	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000
				CSE*1083BTY	1	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV*8121BTY	1	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
				CGA*1103STY	1	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CSE*1083CTS 820 [rpm]	1	704.96	88	56	59	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 880 [rpm]	1	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 680 [rpm]	1	701.83	84	52	55	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 540 [rpm]	1	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 735 [rpm]	1	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA*1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CGA*1124CTS 400 [rpm]	1	702.08	74	42	45	EC	400V	standard	8550	2448	2410
HWF 2512 E	2	R134a	681.0	CMV*8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA*1084BTY	1	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CDR*8104CTB 1020 [rpm]	1	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 820 [rpm]	1	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 680 [rpm]	1	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 610 [rpm]	1	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CGA*1103BTD	1	993.44	92	60	63	AC	400V	standard	7140	2448	2410
				CGA*1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV*8161BTY	1	956	84	52	55	AC	400V	Microchannel	9280	2255	2000
				CGA*1103CTS 820 [rpm]	1	920.47	89	57	60	EC	400V	standard	7140	2448	2410
HWF 3212 E	2	R134a	915.0	CGA*1104CTS 750 [rpm]	1	980.55	87	55	58	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 610 [rpm]	1	916.4	84	52	55	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 735 [rpm]	1	952	80	48	51	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 550 [rpm]	1	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000
				CGA*1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CGA*1123BTY	1	1073.43	89	57	60	AC	400V	standard	8550	2448	2410
				CMV*8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA*1104CTS 820 [rpm]	1	1044.74	89	57	60	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 750 [rpm]	1	1046.28	88	56	59	EC	400V	standard	8550	2448	2410
				CGA*1124CTS 680 [rpm]	1	1095.03	86	54	57	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 670 [rpm]	1	1096.6	79	47	50	EC	400V	Microchannel	11600	2255	2000
				CDR*8103CTE 735 [rpm]	2	547.09	78	46	49	EC	400V	standard	5060	2160	2150
				CDR*8104CTE 610 [rpm]	2	519.84	74	42	45	EC	400V	standard	5060	2160	2150
				CGA*1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 370 [rpm]	2	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
HWF 3612 E	2	R134a	1028.0	CMV*8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000

## Combinations

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
HWF 4212 E	2	R134a	1193.0	CGA*1124BTY	1	1200.99	89	57	60	AC	400V	standard	8550	2448	2410
				CMV*8201BTY	1	1195	85	53	56	AC	400V	Microchannel	11600	2255	2000
				CGA*1123CTB 960 [rpm]	1	1196.86	96	64	67	EC	400V	standard	8550	2448	2410
				CGA*1124CTS 820 [rpm]	1	1253.69	90	58	61	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 740 [rpm]	1	1215.2	85	53	56	EC	400V	Microchannel	11600	2255	2000
				CSE*1083CTS 680 [rpm]	2	628.76	84	52	55	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 740 [rpm]	2	619.52	82	50	53	EC	400V	standard	5060	2160	2150
				CGA*1103CTS 470 [rpm]	2	632.94	77	45	48	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 400 [rpm]	2	668.69	74	42	45	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 320 [rpm]	2	600	68	36	39	EC	400V	Microchannel	11600	2255	2000
HWF 4812 E	2	R134a	1348.0	CSE*1083BTY	2	683.05	87	55	58	AC	400V	standard	9200	2431	1760
				CMV*8121STD	2	675.6	78	46	49	AC	400V	Microchannel	6960	2255	2000
				CGA*1103STY	2	679.52	78	46	49	AC	400V	standard	7140	2448	2410
				CGA*1124CTB 960 [rpm]	1	1379.45	96	64	67	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 880 [rpm]	1	1376.8	89	57	60	EC	400V	Microchannel	11600	2255	2000
				CSE*1083CTS 820 [rpm]	2	704.96	88	56	59	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 880 [rpm]	2	703.43	86	54	57	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 680 [rpm]	2	701.83	84	52	55	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 540 [rpm]	2	699.17	80	48	51	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 735 [rpm]	2	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA*1104CTS 470 [rpm]	2	676.98	77	45	48	EC	400V	standard	7140	2448	2410
				CMV*8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CGA*1104CTS 470 [rpm]	2	676.98	77	45	48	EC	400V	standard	7140	2448	2410
				CMV*8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CGA*1124CTS 400 [rpm]	2	702.08	74	42	45	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 430 [rpm]	2	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
HWF 5612 E	2	R134a	1543.0	CGA*1084BTY	2	776.14	87	55	58	AC	400V	standard	5730	2448	2410
				CMV*8201CTB 1020 [rpm]	1	1516.8	92	60	63	EC	400V	Microchannel	11600	2255	2000
				CDR*8104CTB 1020 [rpm]	2	781.06	89	57	60	EC	400V	standard	5060	2160	2150
				CSE*1084CTS 820 [rpm]	2	802.38	88	56	59	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 680 [rpm]	2	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA*1123STY	2	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE*1084CTB 885 [rpm]	2	827.68	92	60	63	EC	400V	standard	9200	2431	1760
HWF 6412 E	2	R134a	1651.0	CGA*1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*1083BTD	1	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CSE*1084BTY	1	765.74	87	55	58	AC	400V	standard	9200	2431	1760
				CGA*1104STY	1	730.4	78	46	49	AC	400V	standard	7140	2448	2410
				CSE*1083CTB 885 [rpm]	1	723.13	92	60	63	EC	400V	standard	9200	2431	1760
				CDR*8104CTB 950 [rpm]	1	743.22	87	55	58	EC	400V	standard	5060	2160	2150
HWF 2512 AE	2	R134a	720.0	CSE*1084CTS 750 [rpm]	1	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 610 [rpm]	1	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 540 [rpm]	1	759.37	80	48	51	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 470 [rpm]	1	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	1	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	1	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	1	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	1	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA*1123STY	1	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CSE*1084CTB 885 [rpm]	1	827.68	92	60	63	EC	400V	standard	9200	2431	1760
HWF 2812 AE	2	R134a	819.0	CGA*1103CTS 680 [rpm]	1	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	1	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	1	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 670 [rpm]	1	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	1	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*1103BTD	1	993.44	92	60	63	AC	400V	standard	7140	2448	2410
				CGA*1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV*8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA*1103CTB 960 [rpm]	1	997.39	95	63	66	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 750 [rpm]	1	980.55	87	55	58	EC	400V	standard	7140	2448	2410
HWF 3212 AE	2	R134a	970.0	CGA*1123CTS 680 [rpm]	1	983.49	86	54	57	EC	400V	standard	8550	2448	2410
				CGA*1124CTS 610 [rpm]	1	1008.52	84	52	55	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 610 [rpm]	1	1013.4	77	45	48	EC	400V	Microchannel	11600	2255	2000
				CMV*8121CTE 490 [rpm]	2	503.88	71	39	42	EC	400V	Microchannel	6960	2255	2000
				CGA*1104CTS 330 [rpm]	2	494.94	70	38	41	EC	400V	standard	7140	2448	2410
				CMV*8161CTE 370 [rpm]	2	528.16	67	35	38	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
				CGA*1103BTD	1	993.44	92	60	63	AC	400V	standard	7140	2448	2410
				CGA*1104BTY	1	1000.82	88	56	59	AC	400V	standard	7140	2448	2410
				CMV*8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA*1103CTB 960 [rpm]	1	997.39	95	63	66	EC	400V	standard	7140	2448	2410

code	number of circuits	refrigerant	dissipated heating capacity Water temp. 7°C-12°C, Condensation temp. 45°C	Remote condenser	No. of remote condensers to be combined with the chiller	Dissipated heating capacity External air temp. 30°C, Average condensation temp. 45°C	Sound power [dB(A)]	Sound pressure Q=1 [dB(A)] 10m	Sound pressure Q=2 [dB(A)] 10m	Type of fan	Electrical voltage [V]	Heat exchanger	Length (mm)	Width (mm)	Height (mm)
HWF 3612 AE	2	R134a	1087.0	CGA*1104BTD	1	1139.41	92	60	63	AC	400V	standard	7140	2448	2410
				CMV*8161BTD	1	1133.28	89	57	60	AC	400V	Microchannel	9280	2255	2000
				CMV*8201STD	1	1126	80	48	51	AC	400V	Microchannel	11600	2255	2000
				CGA*1104CTB 960 [rpm]	1	1149.54	95	63	66	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 820 [rpm]	1	1104.56	90	58	61	EC	400V	standard	8550	2448	2410
				CGA*1124CTS 680 [rpm]	1	1095.03	86	54	57	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 670 [rpm]	1	1096.6	79	47	50	EC	400V	Microchannel	11600	2255	2000
				CDR*8103CTE 735 [rpm]	2	547.09	78	46	49	EC	400V	standard	5060	2160	2150
				CDR*8104CTE 670 [rpm]	2	561.01	76	44	47	EC	400V	standard	5060	2160	2150
				CGA*1103CTS 400 [rpm]	2	557.24	74	42	45	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 330 [rpm]	2	575.12	70	38	41	EC	400V	standard	8550	2448	2410
				CMV*8201CTE 320 [rpm]	2	586.6	66	34	37	EC	400V	Microchannel	11600	2255	2000
HWF 4212 AE	2	R134a	1260.0	CGA*1124BTD	1	1367.29	93	61	64	AC	400V	standard	8550	2448	2410
				CMV*8201BTD	1	1416.6	90	58	61	AC	400V	Microchannel	11600	2255	2000
				CGA*1124CTB 885 [rpm]	1	1292.95	94	62	65	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 810 [rpm]	1	1301	87	55	58	EC	400V	Microchannel	11600	2255	2000
				CDR*8104CTB 810 [rpm]	2	662.87	84	52	55	EC	400V	standard	5060	2160	2150
				CGA*1103CTB 510 [rpm]	2	663.65	81	49	52	EC	400V	standard	7140	2448	2410
				CGA*1123CTB 435 [rpm]	2	703.87	78	46	49	EC	400V	standard	8550	2448	2410
				CGA*1124CTB 360 [rpm]	2	630.16	74	42	45	EC	400V	standard	8550	2448	2410
				CMV*8201CTB 390 [rpm]	2	703.4	72	40	43	EC	400V	Microchannel	11600	2255	2000
				CSE*1083BTD	2	759.19	91	59	62	AC	400V	standard	9200	2431	1760
				CDR*8104BTD	2	719.42	87	55	58	AC	400V	standard	5060	2160	2150
				CMV*8121BTY	2	717	82	50	53	AC	400V	Microchannel	6960	2255	2000
HWF 4812 AE	2	R134a	1423.0	CMV*8201CTB 950 [rpm]	1	1452	90	58	61	EC	400V	Microchannel	11600	2255	2000
				CSE*1084CTS 750 [rpm]	2	753.51	86	54	57	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 610 [rpm]	2	763.67	83	51	54	EC	400V	standard	7140	2448	2410
				CMV*8121CTE 435 [rpm]	2	714	79	47	50	EC	400V	Microchannel	6960	2255	2000
				CGA*1123CTS 470 [rpm]	2	759.53	78	46	49	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 550 [rpm]	2	742.72	75	43	46	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 430 [rpm]	2	749.8	71	39	42	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CMV*8121BTD	2	849.96	88	56	59	AC	400V	Microchannel	6960	2255	2000
				CGA*1123STY	2	815.42	78	46	49	AC	400V	standard	8550	2448	2410
				CMV*8201CTB 1020 [rpm]	1	1516.8	92	60	63	EC	400V	Microchannel	11600	2255	2000
				CSE*1084CTS 820 [rpm]	2	802.38	88	56	59	EC	400V	standard	9200	2431	1760
HWF 5612 AE	2	R134a	1583.0	CGA*1103CTS 680 [rpm]	2	819.58	85	53	56	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 610 [rpm]	2	840.44	83	51	54	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 540 [rpm]	2	839	81	49	52	EC	400V	standard	8550	2448	2410
				CMV*8161CTE 610 [rpm]	2	810.72	76	44	47	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 490 [rpm]	2	839.8	73	41	44	EC	400V	Microchannel	11600	2255	2000
				CSE*1084BTD	2	872.87	91	59	62	AC	400V	standard	9200	2431	1760
				CGA*1103BTY	2	894.53	88	56	59	AC	400V	standard	7140	2448	2410
				CMV*8161STD	2	900.8	79	47	50	AC	400V	Microchannel	9280	2255	2000
				CSE*1084CTB 960 [rpm]	2	882.55	94	62	65	EC	400V	standard	9200	2431	1760
				CGA*1103CTS 750 [rpm]	2	871.9	87	55	58	EC	400V	standard	7140	2448	2410
				CGA*1104CTS 680 [rpm]	2	912.52	85	53	56	EC	400V	standard	7140	2448	2410
				CGA*1123CTS 610 [rpm]	2	916.4	84	52	55	EC	400V	standard	8550	2448	2410
HWF 6412 AE	2	R134a	1704.0	CMV*8161CTE 670 [rpm]	2	877.28	78	46	49	EC	400V	Microchannel	9280	2255	2000
				CMV*8201CTE 550 [rpm]	2	928.4	76	44	47	EC	400V	Microchannel	11600	2255	2000



# WTE - WTR - WDR - WTS - WTA

## Dry coolers



WTE



WTR-WDR



WTS



WTA

## Features

### WTE RANGE

#### General features

- Design has privileged modularity, each unit is made up from standard sections, whose elements can be easily removed
- Parting from the WTE 563 for the ø 500 range, from the WTE 663 for the ø 630 range, models are found that are made up from two flanked units, thus making vertical installation impossible.

All of the other models are designed for both horizontal and vertical installation. The support feet supplied can be used in both cases.

- To ease the connection of the electric system chillers, the fan motors are wired in the factory (excluding 350 diameter range) and connected to a junction box positioned on the collectors side and protected along with the latter by a lid that can be easily removed.

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- Coils with staggered copper pipes and corrugated or mechanically expanded aluminium louvers. The coils are fixed to the shoulders in a way to prevent pipe breakage due to any vibrations.
- Iron collectors with GAS threading.
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: They are envisioned for D/Y connections and different polarities and allow continuous regulation of the speed via voltage reduction.
- Available versions:
  - (B) basic
  - (S) silent
  - (E) Super silent.

### WTA RANGE

#### General features

- Two exchangers positioned as W
- Two independent cooling circuits
- Two rows of fans with diameter of 800mm
- From 4 to 16 fans
- Separate ventilation compartments for each fan

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.
- Available versions:
  - (BT) basic 6-pole
  - (ST) silent 8-pole
  - (ET) Super silent 12-pole

### WTR RANGE

#### General features

- V exchangers configuration
- Two independent cooling circuits
- Low noise
- Two rows of fans with diameter of 800mm
- From 4 to 10 fans

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan.
- Available versions:
  - (BT) basic 6-pole
  - (ST) silent 8-pole
  - (ET) Super silent 12-pole

### WTS RANGE

#### General features

- Two exchangers positioned as V
- Fans diameter 500 mm
- From 2 to 5 fans
- Separate ventilation compartments for each fan

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and mate-

- rials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating. The standard units are supplied with fans wired on junction box. Air flow separator for each individual fan. The extremely small dimensions allow installation in contained spaces, high output power per surface occupied
- Available versions:
  - (BT) basic 4-pole
  - (ST) silent 6-pole
  - (ET) Super silent 8-pole

### WTR RANGE

#### General features

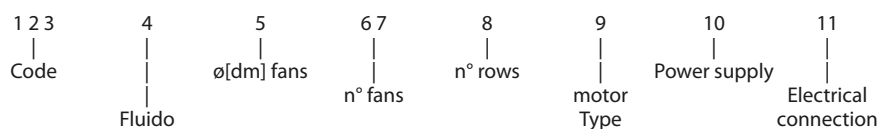
- Two exchangers positioned as V
- Fans diameter 800 mm
- From 2 to 5 fans
- Separate ventilation compartments for each fan

#### Construction features

- They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents
- High efficiency louvred heat exchangers
- Latest generation axial fans to guarantee silent functioning and high performance with IP54 protection rating: The standard units are supplied with the fans wired onto the junction box. Air flow separator for each individual fan. The extremely small dimensions allow installation in contained spaces, high output power per surface occupied
- Available versions:
  - (BT) basic 6-pole
  - (ST) silent 8-pole
  - (ET) Super silent 12-pole

## Choosing the unit

### Field configuration:



#### Code:

WTS-WTE-WTR-WTA-WDR

#### Fluido:

° - Acqua o acqua glicolata con PS max 6 bar

#### ø[dm] fans:

3 - 350  
5 - 500  
6 - 630  
8 - 800  
9 - 910

#### N° fans:

\* - up 1 to 16

#### N° rows:

\* - up 1 to 6

#### Motor type:

B - Standard  
S - Silenced  
E - Extra silenced

#### Power supply:

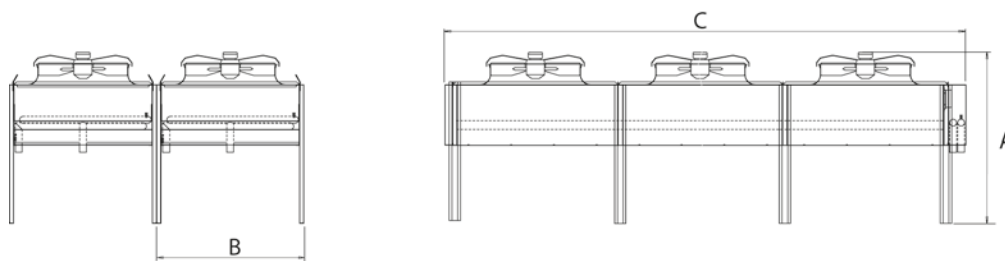
T - 400V/3/50Hz  
M - 230V/1/ 50Hz

#### Electrical connection:

D - Triangle  
° - mono-phase

## Technical and dimensional data

### WTE



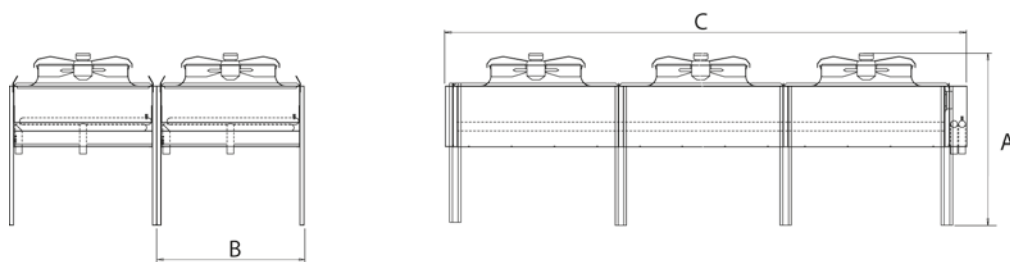
Model WTE	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTE°0312BM	Monophase	3	1	2	2.500	4,6	36	820	620	760
WTE°0313BM	Monophase	3	1	3	2.200	6	36	820	620	760
WTE°0314BM	Monophase	3	1	4	2400	7,4	36	820	620	760
WTE°0322BM	Monophase	3	2	3	5000	9,2	39	820	620	1310
WTE°0323BM	Monophase	3	2	3	4400	12	39	820	620	1310
WTE°0324BM	Monophase	3	2	4	4800	15	39	820	620	1310
WTE°0332BM	Monophase	3	3	2	7500	14	41	820	620	1860
WTE°0333BM	Monophase	3	3	3	6600	18	41	820	620	1860
WTE°0334BM	Monophase	3	3	4	7200	22	41	820	620	1860
WTE°0342BM	Monophase	3	4	2	10000	18	42	820	1200	1310
WTE°0343BM	Monophase	3	4	3	8800	24	42	820	1200	1310
WTE°0344BM	Monophase	3	4	4	9600	30	42	820	1200	1310
WTE°0362BM	Monophase	3	6	2	15000	28	44	820	1200	1860
WTE°0363BM	Monophase	3	6	3	13200	38	44	820	1200	1860
WTE°0364BM	Monophase	3	6	4	14400	47	44	820	1200	1860
WTE°0312SM	Monophase	3	1	2	1500	3,6	26	820	620	760
WTE°0313SM	Monophase	3	1	3	1300	4,4	26	820	620	760
WTE°0314SM	Monophase	3	1	4	1400	5	26	820	620	760
WTE°0322SM	Monophase	3	2	3	3000	7,4	29	820	620	1310
WTE°0323SM	Monophase	3	2	3	2600	9	29	820	620	1310
WTE°0324SM	Monophase	3	2	4	2800	10	29	820	620	1310
WTE°0332SM	Monophase	3	3	2	4500	11	31	820	620	1860
WTE°0333SM	Monophase	3	3	3	3900	14	31	820	620	1860
WTE°0334SM	Monophase	3	3	4	4200	16	31	820	620	1860
WTE°0342SM	Monophase	3	4	2	6000	15	32	820	1200	1310
WTE°0343SM	Monophase	3	4	3	5200	18	32	820	1200	1310
WTE°0344SM	Monophase	3	4	4	5600	20	32	820	1200	1310
WTE°0362SM	Monophase	3	6	2	9000	24	34	820	1200	1860
WTE°0363SM	Monophase	3	6	3	7800	28	34	820	1200	1860
WTE°0364SM	Monophase	3	6	4	8400	32	34	820	1200	1860
WTE°0513 BT	triangle	5	1	3	7750	17	48	1060	833	1105
WTE°0514 BT	triangle	5	1	4	7400	20	48	1060	833	1105
WTE°0515 BT	triangle	5	1	5	7100	23	48	1060	833	1105
WTE°0522 BT	triangle	5	2	2	16000	26	51	1060	833	2045
WTE°0523 BT	triangle	5	2	3	15500	35	51	1060	833	2045

The performance refers to the following conditions:

e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C  
- Twi = 40 °C  
- Two = 35 °C  
- Glyvol = 34%

## WTE



WTE°0524 BT	triangle	5	2	4	14800	42	51	1060	833	2045
Model WTE	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTE°0525BT	triangle	5	2	5	14200	47	51	1060	833	2045
WTE°0533BT	triangle	5	3	3	23250	54	53	1060	833	2985
WTE°0534BT	triangle	5	3	4	22200	63	53	1060	833	2985
WTE°0535BT	triangle	5	3	5	21300	70	53	1060	833	2985
WTE°0543BT	triangle	5	4	3	31000	71	54	1060	833	3925
WTE°0544BT	triangle	5	4	4	29600	83	54	1060	833	3925
WTE°0545BT	triangle	5	4	5	28400	96	54	1060	833	3925
WTE°0563BT	triangle	5	6	3	46500	108	56	1060	833	2985
WTE°0564BT	triangle	5	6	4	44400	126	56	1060	833	2985
WTE°0565BT	triangle	5	6	5	42600	140	56	1060	833	2985
WTE°0583BT	triangle	5	8	3	62000	142	57	1060	833	3925
WTE°0584BT	triangle	5	8	4	59200	166	57	1060	833	3925
WTE°0585BT	triangle	5	8	5	56800	192	57	1060	833	3925
WTE°0513ST	triangle	5	1	3	5100	13	38	1060	833	1105
WTE°0514ST	triangle	5	1	4	4850	11	38	1060	833	1105
WTE°0515ST	triangle	5	1	5	4600	17	38	1060	833	1105
WTE°0522ST	triangle	5	2	2	10650	21	41	1060	833	2045
WTE°0523ST	triangle	5	2	3	10200	27	41	1060	833	2045
WTE°0524ST	triangle	5	2	4	9700	32	41	1060	833	2045
WTE°0525ST	triangle	5	2	5	9200	34	41	1060	833	2045
WTE°0533ST	triangle	5	3	3	15300	41	43	1060	833	2985
WTE°0534ST	triangle	5	3	4	14550	48	43	1060	833	2985
WTE°0535ST	triangle	5	3	5	13800	52	43	1060	833	2985
WTE°0543ST	triangle	5	4	3	20400	56	44	1060	833	3925
WTE°0544ST	triangle	5	4	4	19400	64	44	1060	833	3925
WTE°0545ST	triangle	5	4	5	18400	69	44	1060	833	3925
WTE°0563ST	triangle	5	6	3	30600	82	46	1060	833	2985
WTE°0564ST	triangle	5	6	4	29100	96	46	1060	833	2985
WTE°0565ST	triangle	5	6	5	27600	104	46	1060	833	2985
WTE°0583ST	triangle	5	8	3	40800	112	47	1060	833	3925
WTE°0584ST	triangle	5	8	4	38800	129	47	1060	833	3925
WTE°0585ST	triangle	5	8	5	36800	139	47	1060	833	3925
WTE°0513ET	triangle	5	1	3	3350	10	32	1060	833	1105
WTE°0514ET	triangle	5	1	4	3200	11	32	1060	833	1105
WTE°0515ET	triangle	5	1	5	3000	12	32	1060	833	1105
WTE°0522ET	triangle	5	2	2	7300	17	35	1060	833	2045
WTE°0523ET	triangle	5	2	3	6700	21	35	1060	833	2045
WTE°0524ET	triangle	5	2	4	6400	24	35	1060	833	2045
WTE°0525ET	triangle	5	2	5	6000	25	35	1060	833	2045
WTE°0533ET	triangle	5	3	3	10050	31	37	1060	833	2985
WTE°0534ET	triangle	5	3	4	9600	36	37	1060	833	2985
WTE°0535ET	triangle	5	3	5	9000	38	37	1060	833	2985
WTE°0543ET	triangle	5	4	3	13400	42	38	1060	833	3925
WTE°0544ET	triangle	5	4	4	12800	48	38	1060	833	3925
WTE°0545ET	triangle	5	4	5	12000	50	38	1060	833	3925
WTE°0563ET	triangle	5	6	3	20100	63	40	1060	833	2985
WTE°0564ET	triangle	5	6	4	19200	72	40	1060	833	2985
WTE°0565ET	triangle	5	6	5	18000	75	40	1060	833	2985
WTE°0583ET	triangle	5	8	3	26800	84	41	1060	833	3925
WTE°0584ET	triangle	5	8	4	25600	97	41	1060	833	3925
WTE°0585ET	triangle	5	8	5	24000	100	41	1060	833	3925
WTE°0513BM	Monophase	5	1	3	7360	16	45	1060	833	1105
WTE°0514BM	Monophase	5	1	4	7030	20	45	1060	833	1105
WTE°0515BM	Monophase	5	1	5	6745	22	45	1060	833	1105
WTE°0522BM	Monophase	5	5	5	15200	26	48	1060	833	2045
WTE°0523BM	Monophase	5	2	3	14720	34	48	1060	833	2045
WTE°0524BM	Monophase	5	2	4	14060	41	48	1060	833	2045
WTE°0525BM	Monophase	5	2	5	13490	45	48	1060	833	2045
WTE°0533BM	Monophase	5	3	3	22080	52	50	1060	833	2985

The performance refers to the following conditions:

e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

## Technical and dimensional data

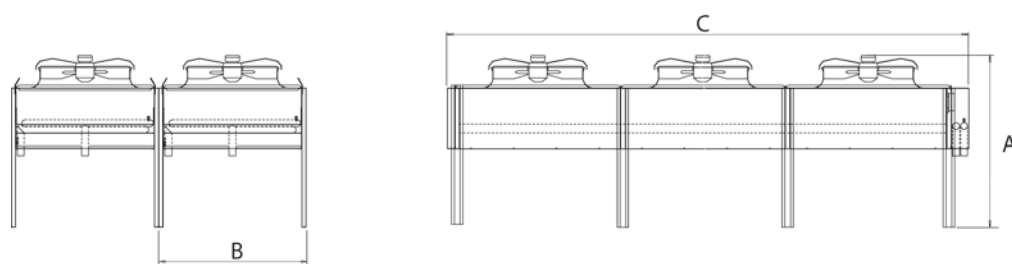
Model WTE	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTE°0534BM	Monophase	5	3	4	21090	61	50	1060	833	2985
WTE°0535BM	Monophase	5	3	5	20235	67	50	1060	833	2985
WTE°0543BM	Monophase	5	4	3	29440	69	51	1060	833	3925
WTE°0544BM	Monophase	5	4	4	28120	80	51	1060	833	3925
WTE°0545BM	Monophase	5	4	5	26980	92	51	1060	833	3925
WTE°0563BM	Monophase	5	6	3	44160	104	53	1060	833	2985
WTE°0564BM	Monophase	5	6	4	42180	122	53	1060	833	2985
WTE°0565BM	Monophase	5	6	5	40470	135	53	1060	833	2985
WTE°0583BM	Monophase	5	8	3	58880	137	54	1060	833	3925
WTE°0584BM	Monophase	5	8	4	56240	160	54	1060	833	3925
WTE°0585BM	Monophase	5	8	5	53960	185	54	1060	833	3925
WTE°0513SM	Monophase	5	1	3	5000	13	35	1060	833	1105
WTE°0514SM	Monophase	5	1	4	4750	15	35	1060	833	1105
WTE°0515SM	Monophase	5	1	5	4510	17	35	1060	833	1105
WTE°0522SM	Monophase	5	2	2	10440	21	38	1060	833	2045
WTE°0523SM	Monophase	5	2	3	10000	27	38	1060	833	2045
WTE°0524SM	Monophase	5	2	4	9500	31	38	1060	833	2045
WTE°0525SM	Monophase	5	2	5	9020	34	38	1060	833	2045
WTE°0533SM	Monophase	5	3	3	15000	40	40	1060	833	2985
WTE°0534SM	Monophase	5	3	4	14250	47	40	1060	833	2985
WTE°0535SM	Monophase	5	3	5	15350	51	40	1060	833	2985
WTE°0543SM	Monophase	5	4	3	20000	55	41	1060	833	3925
WTE°0544SM	Monophase	5	4	4	19000	65	41	1060	833	3925
WTE°0545SM	Monophase	5	4	5	18040	68	41	1060	833	3925
WTE°0563SM	Monophase	5	6	3	30000	80	43	1060	833	2985
WTE°0564SM	Monophase	5	6	4	28500	95	43	1060	833	2985
WTE°0565SM	Monophase	5	6	5	27060	102	43	1060	833	2985
WTE°0583SM	Monophase	5	8	3	40000	111	44	1060	833	3925
WTE°0584SM	Monophase	5	8	4	38000	127	44	1060	833	3925
WTE°0585SM	Monophase	5	8	5	36080	136	44	1060	833	3925
WTE°0513 EM	Monophase	5	1	3	3720	11	32	1060	833	1105
WTE°0514 EM	Monophase	5	1	4	3550	12	32	1060	833	1105
WTE°0515 EM	Monophase	5	1	5	3330	13	32	1060	833	1105
WTE°0522 EM	Monophase	5	2	2	8100	18	35	1060	833	2045
WTE°0523 EM	Monophase	5	2	3	7440	22	35	1060	833	2045
WTE°0524 EM	Monophase	5	2	4	7100	25	35	1060	833	2045
WTE°0525 EM	Monophase	5	2	5	6660	27	35	1060	833	2045
WTE°0533 EM	Monophase	5	3	3	11160	34	37	1060	833	2985
WTE°0534 EM	Monophase	5	3	4	10650	38	37	1060	833	2985
WTE°0535 EM	Monophase	5	3	5	9990	41	37	1060	833	2985
WTE°0543 EM	Monophase	5	4	3	14880	45	38	1060	833	3925
WTE°0544 EM	Monophase	5	4	4	14200	51	38	1060	833	3925
WTE°0545 EM	Monophase	5	4	5	13320	55	38	1060	833	3925
WTE°0563 EM	Monophase	5	6	3	22320	68	40	1060	833	2985
WTE°0564 EM	Monophase	5	6	4	21300	76	40	1060	833	2985
WTE°0565 EM	Monophase	5	6	5	19980	82	40	1060	833	2985
WTE°0583 EM	Monophase	5	8	3	29760	90	41	1060	833	3925
WTE°0584 EM	Monophase	5	8	4	28400	102	41	1060	833	3925
WTE°0585 EM	Monophase	5	8	5	26640	109	41	1060	833	3925
WTE°0613BT	triangle	6	1	3	9550	23	49	1200	1033	1340
WTE°0614BT	triangle	6	1	4	9150	28	49	1200	1033	1340
WTE°0615BT	triangle	6	1	5	8700	31	49	1200	1033	1340
WTE°0623BT	triangle	6	2	3	19100	48	52	1200	1033	2500
WTE°0624BT	triangle	6	2	4	18300	56	52	1200	1033	2500
WTE°0625BT	triangle	6	2	5	17400	62	52	1200	1033	2500
WTE°0633BT	triangle	6	3	3	28650	74	54	1200	1033	3660
WTE°0634BT	triangle	6	3	4	27450	85	54	1200	1033	3660
WTE°0635BT	triangle	6	3	5	26100	93	54	1200	1033	3660
WTE°0643BT	triangle	6	4	3	38200	98	55	1200	1033	4820
WTE°0644BT	triangle	6	4	4	36600	113	55	1200	1033	4820
WTE°0645BT	triangle	6	4	5	34800	123	55	1200	1033	4820
WTE°0663BT	triangle	6	6	3	57300	147	57	1200	1033	3660
WTE°0664BT	triangle	6	6	4	54900	171	57	1200	1033	3660
WTE°0665BT	triangle	6	6	5	52200	186	57	1200	1033	3660
WTE°0683BT	triangle	6	8	3	76400	195	58	1200	1033	4820
WTE°0684BT	triangle	6	8	4	73200	226	58	1200	1033	4820
WTE°0685BT	triangle	6	8	5	69600	246	58	1200	1033	4820
WTE°0613ST	triangle	6	1	3	6750	19	42	1200	1033	1340
WTE°0614ST	triangle	6	1	4	6500	22	42	1200	1033	1340

The performance refers to the following conditions:

- e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

## WTE



WTE°0615ST	triangle	6	1	5	6200	24	42	1200	1033	1340
Model WTE	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m3/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTE°0623ST	triangle	6	2	3	13500	38	45	1200	1033	2500
WTE°0624ST	triangle	6	2	4	13000	45	45	1200	1033	2500
WTE°0625ST	triangle	6	2	5	12400	48	45	1200	1033	2500
WTE°0633ST	triangle	6	3	3	20250	58	47	1200	1033	3660
WTE°0634ST	triangle	6	3	4	19500	67	47	1200	1033	3660
WTE°0635ST	triangle	6	3	5	18600	73	47	1200	1033	3660
WTE°0643ST	triangle	6	4	3	27000	77	48	1200	1033	4820
WTE°0644ST	triangle	6	4	4	26000	88	48	1200	1033	4820
WTE°0645ST	triangle	6	4	5	24800	98	48	1200	1033	4820
WTE°0663ST	triangle	6	6	3	40500	116	50	1200	1033	3660
WTE°0664ST	triangle	6	6	4	39000	134	50	1200	1033	3660
WTE°0665ST	triangle	6	6	5	37200	147	50	1200	1033	3660
WTE°0683ST	triangle	6	8	3	54000	154	51	1200	1033	4820
WTE°0684ST	triangle	6	8	4	52000	177	51	1200	1033	4820
WTE°0685ST	triangle	6	8	5	49600	196	51	1200	1033	4820
WTE°0613ET	triangle	6	1	3	4450	14	32	1200	1033	1340
WTE°0614ET	triangle	6	1	4	4300	16	32	1200	1033	1340
WTE°0615ET	triangle	6	1	5	4050	17	32	1200	1033	1340
WTE°0623ET	triangle	6	2	3	8900	29	35	1200	1033	2500
WTE°0624ET	triangle	6	2	4	8600	33	35	1200	1033	2500
WTE°0625ET	triangle	6	2	5	8100	35	35	1200	1033	2500
WTE°0633ET	triangle	6	3	3	13350	44	37	1200	1033	3660
WTE°0634ET	triangle	6	3	4	12900	50	37	1200	1033	3660
WTE°0635ET	triangle	6	3	5	12150	53	37	1200	1033	3660
WTE°0643ET	triangle	6	4	3	17800	59	38	1200	1033	4820
WTE°0644ET	triangle	6	4	4	17200	67	38	1200	1033	4820
WTE°0645ET	triangle	6	4	5	16200	69	38	1200	1033	4820
WTE°0663ET	triangle	6	6	3	26700	89	40	1200	1033	3660
WTE°0664ET	triangle	6	6	4	25800	100	40	1200	1033	3660
WTE°0665ET	triangle	6	6	5	24300	105	40	1200	1033	3660
WTE°0683ET	triangle	6	8	3	35600	118	41	1200	1033	4820
WTE°0684ET	triangle	6	8	4	34400	133	41	1200	1033	4820
WTE°0685ET	triangle	6	8	5	32400	139	41	1200	1033	4820
WTE°0913BT	triangle	9	1	3	20400	47	56	1530	1434	1633
WTE°0914BT	triangle	9	1	4	19350	55	56	1530	1434	1633
WTE°0916BT	triangle	9	1	6	17700	65	56	1530	1434	1633
WTE°0923BT	triangle	9	2	3	40800	96	59	1530	1434	3063
WTE°0924BT	triangle	9	2	4	38700	111	59	1530	1434	3063
WTE°0926BT	triangle	9	2	6	35400	133	59	1530	1434	3063
WTE°0933BT	triangle	9	3	3	61200	144	61	1530	1434	4493
WTE°0934BT	triangle	9	3	4	58050	168	61	1530	1434	4493
WTE°0936BT	triangle	9	3	6	53100	195	61	1530	1434	4493
WTE°0943BT	triangle	9	4	3	81600	191	62	1530	1434	3063
WTE°0944BT	triangle	9	4	4	77400	223	62	1530	1434	3063
WTE°0946BT	triangle	9	4	6	70800	267	62	1530	1434	3063
WTE°0963BT	triangle	9	6	3	122400	289	64	1530	1434	4493
WTE°0964BT	triangle	9	6	4	116100	335	64	1530	1434	4493
WTE°0966BT	triangle	9	6	6	106200	390	64	1530	1434	4493
WTE°0913ST	triangle	9	1	3	15000	39	50	1530	1434	1633
WTE°0914ST	triangle	9	1	4	14050	45	50	1530	1434	1633
WTE°0916ST	triangle	9	1	6	12900	51	50	1530	1434	1633
WTE°0923ST	triangle	9	2	3	30000	78	53	1530	1434	3063
WTE°0924ST	triangle	9	2	4	28100	91	53	1530	1434	3063
WTE°0926ST	triangle	9	2	6	25800	104	53	1530	1434	3063
WTE°0933ST	triangle	9	3	3	45000	118	55	1530	1434	4493
WTE°0934ST	triangle	9	3	4	42150	133	55	1530	1434	4493
WTE°0936ST	triangle	9	3	6	38700	158	55	1530	1434	4493
WTE°0943ST	triangle	9	4	3	60000	156	56	1530	1434	3063

The performance refers to the following conditions:

e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%



## Technical and dimensional data

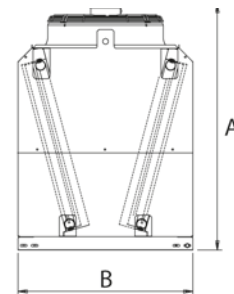
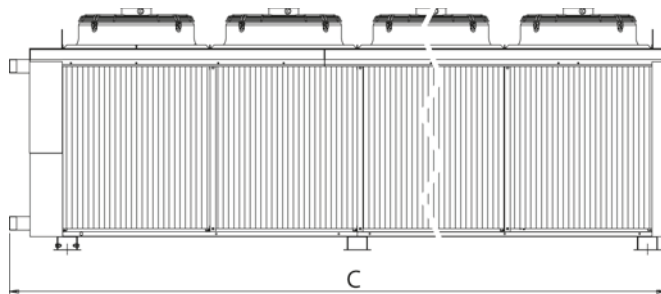
Model WTE	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTE°0944ST	triangle	9	4	4	56200	183	56	1530	1434	3063
WTE°0946ST	triangle	9	4	6	51600	208	56	1530	1434	3063
WTE°0963ST	triangle	9	6	3	90000	235	58	1530	1434	4493
WTE°0964ST	triangle	9	6	4	84300	267	58	1530	1434	4493
WTE°0966ST	triangle	9	6	6	77400	316	58	1530	1434	4493
WTE°0913ET	triangle	9	1	3	9200	28	38	1530	1434	1633
WTE°0914ET	triangle	9	1	4	8600	32	38	1530	1434	1633
WTE°0916ET	triangle	9	1	6	7800	35	38	1530	1434	1633
WTE°0923ET	triangle	9	2	3	18400	57	41	1530	1434	3063
WTE°0924ET	triangle	9	2	4	17200	65	41	1530	1434	3063
WTE°0926ET	triangle	9	2	6	15600	70	41	1530	1434	3063
WTE°0933ET	triangle	9	3	3	27600	87	43	1530	1434	4493
WTE°0934ET	triangle	9	3	4	25800	96	43	1530	1434	4493
WTE°0936ET	triangle	9	3	6	23400	106	43	1530	1434	4493
WTE°0943ET	triangle	9	4	3	36800	115	44	1530	1434	3063
WTE°0944ET	triangle	9	4	4	34400	129	44	1530	1434	3063
WTE°0946ET	triangle	9	4	6	31200	141	44	1530	1434	3063
WTE°0963ET	triangle	9	6	3	55200	174	46	1530	1434	4493
WTE°0964ET	triangle	9	6	4	51600	193	46	1530	1434	4493
WTE°0966ET	triangle	9	6	6	46800	212	46	1530	1434	4493

The performance refers to the following conditions:

- e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

WTS



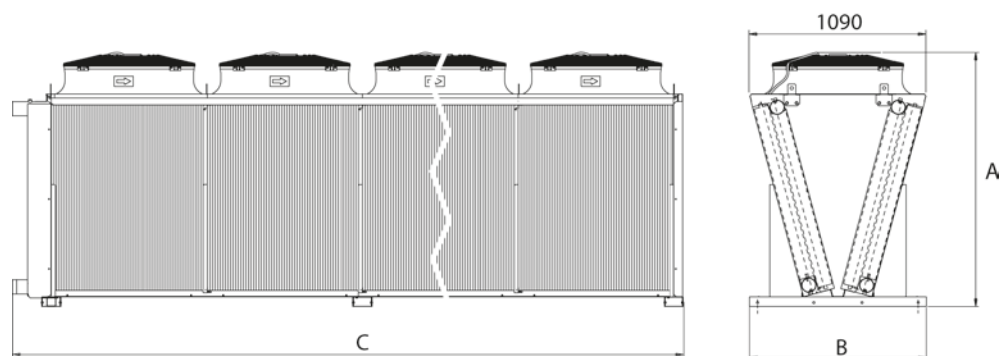
Model WTS	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTS°0523BT	triangle	5	2	3	15.800	46	51	1065	780	1610
WTS°0524BT	triangle	5	2	4	15.200	51	51	1065	780	1610
WTS°0533BT	triangle	5	3	3	23700	69	53	1065	780	2265
WTS°0534BT	triangle	5	3	4	22800	77	53	1065	780	2265
WTS°0543BT	triangle	5	4	3	31600	92	54	1065	780	2920
WTS°0544BT	triangle	5	4	4	30400	103	54	1065	780	2920
WTS°0553BT	triangle	5	5	3	39500	115	55	1065	780	3575
WTS°0554BT	triangle	5	5	4	38000	128	55	1065	780	3575
WTS°0523ST	triangle	5	2	3	10400	38	41	1065	780	1610
WTS°0524ST	triangle	5	2	4	10000	41	41	1065	780	1610
WTS°0533ST	triangle	5	3	3	15600	57	43	1065	780	2265
WTS°0534ST	triangle	5	3	4	15000	62	43	1065	780	2265
WTS°0543ST	triangle	5	4	3	20800	76	44	1065	780	2920
WTS°0544ST	triangle	5	4	4	20000	82	44	1065	780	2920
WTS°0553ST	triangle	5	5	3	26000	95	45	1065	780	3575
WTS°0554ST	triangle	5	5	4	25000	103	45	1065	780	3575
WTS°0523ET	triangle	5	2	3	6800	27	34	1065	780	1610
WTS°0524ET	triangle	5	2	4	6500	29	34	1065	780	1610
WTS°0533ET	triangle	5	3	3	10200	41	36	1065	780	2265
WTS°0534ET	triangle	5	3	4	9750	44	36	1065	780	2265
WTS°0543ET	triangle	5	4	3	13600	54	37	1065	780	2920
WTS°0544ET	triangle	5	4	4	13000	58	37	1065	780	2920
WTS°0553ET	triangle	5	5	3	17000	66	38	1065	780	3575
WTS°0554ET	triangle	5	5	4	16250	71	38	1065	780	3575

The performance refers to the following conditions:

- e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

**WTR**



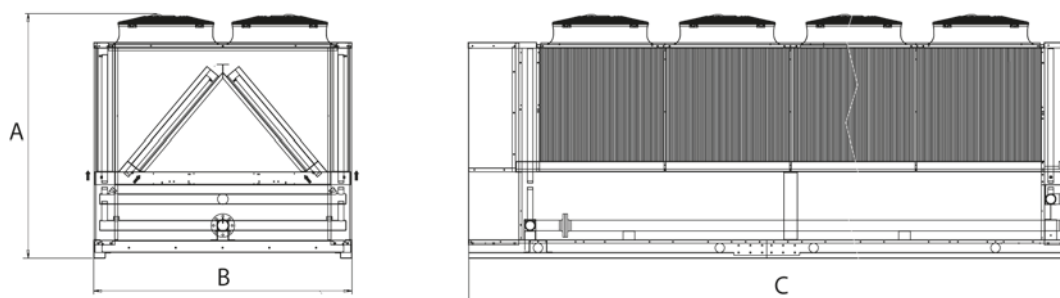
Model WTR	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTR°0823BT	triangle	8	2	3	46.000	131	51	1590	1100	2270
WTR°0824BT	triangle	8	2	4	45.000	150	51	1590	1100	2270
WTR°0833BT	triangle	8	3	3	70000	204	53	1590	1100	3210
WTR°0834BT	triangle	8	3	4	66000	229	53	1590	1100	3210
WTR°0843BT	triangle	8	4	3	92000	275	54	1590	1100	4180
WTR°0844BT	triangle	8	4	4	88500	307	54	1590	1100	4180
WTR°0853BT	triangle	8	5	3	114000	338	55	1590	1100	5150
WTR°0854BT	triangle	8	5	4	112000	390	55	1590	1100	5150
WTR°0823ST	triangle	8	2	3	34000	112	43	1590	1100	2270
WTR°0824ST	triangle	8	2	4	32000	122	43	1590	1100	2270
WTR°0833ST	triangle	8	3	3	50500	167	45	1590	1100	3210
WTR°0834ST	triangle	8	3	4	48000	183	45	1590	1100	3210
WTR°0843ST	triangle	8	4	3	67000	223	46	1590	1100	4180
WTR°0844ST	triangle	8	4	4	63000	240	46	1590	1100	4180
WTR°0853ST	triangle	8	5	3	83500	279	47	1590	1100	5150
WTR°0854ST	triangle	8	5	4	80000	298	47	1590	1100	5150
WTR°0823ET	triangle	8	2	3	21100	79	33	1590	1100	2270
WTR°0833ET	triangle	8	3	3	31750	121	35	1590	1100	3210
WTR°0843ET	triangle	8	4	3	42300	162	36	1590	1100	4180
WTR°0853ET	triangle	8	5	3	52900	203	37	1590	1100	5150

The performance refers to the following conditions:

- e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

**WTA**



Model WTA	wiring connec.	ø Fans	Fan	Rows	air flow rate	Power	Sound pressure	Dimensions [mm]		
		[dm]	[n°]	[n°]	[m3/h]	[kW]	dB(A)	A	B	C
WTA°0843BT	triangle	8	4	3	84.000	283	54	2090	2200	3250
WTA°0844BT	triangle	8	4	4	82.000	314	54	2090	2200	3250
WTA°0863BT	triangle	8	6	3	122000	391	56	2090	2200	3850
WTA°0864BT	triangle	8	6	4	112000	422	56	2090	2200	3850
WTA°0883BT	triangle	8	8	3	165000	525	57	2090	2200	5100
WTA°0884BT	triangle	8	8	4	153000	569	57	2090	2200	5100
WTA°08103BT	triangle	8	10	3	205000	674	58	2090	2200	8100
WTA°08104BT	triangle	8	10	4	190000	736	58	2090	2200	8100
WTA°08123BT	triangle	8	12	3	242000	782	59	2090	2200	8700
WTA°08124BT	triangle	8	12	4	222000	844	59	2090	2200	8700
WTA°08143BT	triangle	8	14	3	282000	916	59	2090	2200	9950
WTA°08144BT	triangle	8	14	4	258000	991	59	2090	2200	9950
WTA°08163BT	triangle	8	16	3	324000	1050	60	2090	2200	11200
WTA°08164BT	triangle	8	16	4	296000	1138	60	2090	2200	11200

The performance refers to the following conditions:

- e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%



## Technical and dimensional data

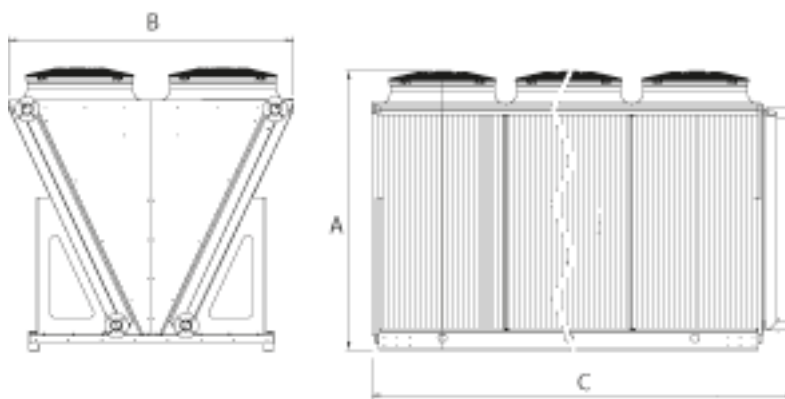
Model WTA	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m³/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WTA°0843ST	triangle	8	4	3	62000	220	46	2090	2200	3250
WTA°0844ST	triangle	8	4	4	60000	236	46	2090	2200	3250
WTA°0863ST	triangle	8	6	3	87000	297	48	2090	2200	3850
WTA°0864ST	triangle	8	6	4	82000	316	48	2090	2200	3850
WTA°0883ST	triangle	8	8	3	116000	398	49	2090	2200	5100
WTA°0884ST	triangle	8	8	4	110000	424	49	2090	2200	5100
WTA°08103ST	triangle	8	10	3	147000	517	50	2090	2200	8100
WTA°08104ST	triangle	8	10	4	142000	551	50	2090	2200	8100
WTA°08123ST	triangle	8	12	3	170000	593	51	2090	2200	8700
WTA°08124ST	triangle	8	12	4	162000	632	51	2090	2200	8700
WTA°08143ST	triangle	8	14	3	202000	694	51	2090	2200	9950
WTA°08144ST	triangle	8	14	4	187000	739	51	2090	2200	9950
WTA°08163ST	triangle	8	16	3	230000	796	52	2090	2200	11200
WTA°08164ST	triangle	8	16	4	215000	847	52	2090	2200	11200
WTA°0843 ET	triangle	8	4	6	37400	159	36	2090	2200	3250
WTA°0863 ET	triangle	8	6	3	52500	218	38	2090	2200	3850
WTA°0883 ET	triangle	8	8	3	70300	292	39	2090	2200	5100
WTA°08103 ET	triangle	8	10	3	89900	377	40	2090	2200	8100
WTA°08123 ET	triangle	8	12	3	105100	436	41	2090	2200	8700
WTA°08143 ET	triangle	8	14	3	122800	510	41	2090	2200	9950
WTA°08163 ET	triangle	8	16	3	140600	584	42	2090	2200	11200

The performance refers to the following conditions:

- e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

### WDR



Model WDR	wiring connec.	ø Fans [dm]	Fan [n°]	Rows [n°]	air flow rate [m³/h]	Power [kW]	Sound pressure dB(A)	Dimensions [mm]		
								A	B	C
WDR°0843BT	triangle	8	4	3	77.100	232	54	2150	1850	2270
WDR°0844BT	triangle	8	4	4	70.400	254	54	2150	1850	2270
WDR°0863BT	triangle	8	6	3	115700	349	56	2150	1850	3240
WDR°0864BT	triangle	8	6	4	105500	381	56	2150	1850	3240
WDR°0883BT	triangle	8	8	3	154200	467	57	2150	1850	4210
WDR°0884BT	triangle	8	8	4	140700	508	57	2150	1850	4210
WDR°08103BT	triangle	8	10	3	192800	583	58	2150	1850	5180
WDR°08104BT	triangle	8	10	4	176000	635	58	2150	1850	5180
WDR°0843ST	triangle	8	4	3	55000	188	46	2150	1850	2270
WDR°0844ST	triangle	8	4	4	50000	203	46	2150	1850	2270
WDR°0863ST	triangle	8	6	3	82000	286	48	2150	1850	3240
WDR°0864ST	triangle	8	6	4	74500	301	48	2150	1850	3240
WDR°0883ST	triangle	8	8	3	110000	384	49	2150	1850	4210
WDR°0884ST	triangle	8	8	4	99000	405	49	2150	1850	4210
WDR°08103ST	triangle	8	10	3	136000	476	50	2150	1850	5180
WDR°08104ST	triangle	8	10	4	125000	507	50	2150	1850	5180
WDR°0843ET	triangle	8	4	3	33350	137	36	2150	1850	2270
WDR°0863ET	triangle	8	6	3	49900	206	38	2150	1850	3240
WDR°0883ET	triangle	8	8	3	66600	274	39	2150	1850	4210
WDR°08103ET	triangle	8	10	3	83250	343	40	2150	1850	5180

The performance refers to the following conditions:

- e Sound pressure measured in free field at a distance of 10m and directionality factor = 2;

- Ta = 25°C
- Twi = 40 °C
- Two = 35 °C
- Glyvol = 34%

## MEC-W

Water-cooled packaged air conditioners  
With radial fans and capacities from 11 up to 55 kW

R407C



### Features

- Available in 5 different sizes
- All versions are supplied for use with R407C
- Metallic protective cabinet with rustproof polyester paint
- Double suction radial fans
- Electric motors with belt transmission
- Four row evaporator coil with copper tubes and aluminium fins
- Washable air filter
- Room thermostat with one or two contacts depending on the model
- Hermetic compressors
- Plate-type condenser
- Water flow control valve driven directly in relation to condensing pressure

### Accessories

- BAS: Hot water coil with three rows of aluminium finned copper tubes.
- PL: Air distribution plenum comprising delivery grille with two rows of adjustable slats and internal lining of sound insulating material.

### Compatibility of accessories

Mod.	307 W	507 W	757 W	1007 W	1507 W
BAS 30	.				
BAS 50		.			
BAS 75			.		
BAS 100				.	
BAS 150					.
BAS 200					
BAS 300					
PL 22	.				
PL 23		.			
PL 26			.		
PL 37				.	
PL 38					.
PL 39					
PL 300					.

## Technical data

Mod. MEC		307 W	507 W	757 W	1007 W	1507 W
Cooling capacity	kW	11	18	29	35	55
Input power	kW	3,05	4,45	7,3	8,5	13,7
Water flow rate at 30 °C	l/h	2350	3740	5900	7270	11270
Pressure drops	kPa	38	65	56	65	53
Water consumption at 16 °C*	l/h	620	990	1550	1910	2970
Pressure drops*	kPa	3,5	6,7	5	5,3	5
Heating capacity (accessory BAS)	kW	25,28	46,61	58,01	78,59	113,68
Pressure drops (accessory BAS)	kPa	3,47	4,01	3,97	4,59	5,77
Coil rows	n.	4	4	4	4	4
Nominal air flow rate	m <sup>3</sup> /h	2040	3400	5100	6800	10200
e Sound pressure	dB (A)	63	65,5	72,5	69,5	73,5
Motor power	kW	0,375	0,75	1,125	1,5	1,125
Speed	g/m (min.)	840	840	840	620	840
	g/m (max.)	1120	1120	1120	810	1120
	mm (min.)	79	79	79	79	79
Motor pulley diameter	mm (max.)	104	104	104	104	104
	mm	130	130	130	180	130
Air flow rate	m <sup>3</sup> /h (min.)	1600	2750	4100	5500	8200
	m <sup>3</sup> /h (max.)	2400	4100	6000	8200	12000
Input current	A (230 V)	12,2	15,4	24,2	30,8	46,6
	A (400 V)	6	8,9	13,9	17,8	26,9
Peak current	A (230 V)	98	142	168	157	190
		48	68	101	77	115

Power supply: 3~ 230V 50Hz; 3N~ 400V 50Hz.

### Cooling

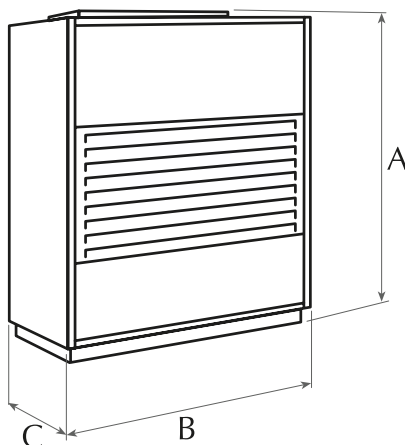
- room air temperature 27 °C D.B., 19 °C W.B.;
- condensing temperature 40 °C;
- \* condensing temperature 35 °C.

### Heating

- water inlet temperature 85 °C;
- air intake temperature 15 °C;

e Sound pressure measured in an 85 m<sup>3</sup> semi-reverberant test chamber with reverberation time Tr = 0.5s..

## Dimensions (mm)



Mod.		307 W	507 W	757 W	1007 W	1507 W
Height	A	1290	1410	1680	1700	1745
Width	B	900	1040	1220	1450	1880
Depth	C	494	558	648	723	753
Weight	kg	147	184	273	335	484

## FW-R

Water-cooled air conditioners with capacities from 2.9 up to 4.0 kW

**HFC**  
Refrigerant  
**R410A**

**A**

Maximum Operating  
Efficiency  
Seasonal Energy  
(See Technical Data)



TL 3  
Mandatory accessory



TL3 Receiver board

TL3 wall-mounted receiver

FW-R series integrated system air conditioners are independent appliances designed and built to create and maintain optimum room comfort conditions.

Discreetly and elegantly styled, these remarkably quiet units are ideal for installation in the home or commercial premises.

Equipped with a water-cooled condenser, FW-R appliances perform all typical cooling, dehumidification, ventilation and air filtration functions while offering particular benefits in terms of ease of application and installation.

Suitable also for winter operation when equipped with an electric heater or hot water coil; console air conditioners are able to provide different microclimates within the same room because each appliance can be adjusted independently; low running costs are assured by fast arrival at the required room temperature because of the low thermal inertia of the system; quiet operation and thermal efficiency are also promoted by the heat and sound insulation of the compressor bay.

All appliances are factory assembled and individually tested.

### Features

- High efficiency rotary compressor
- Quiet operation
- Reduced water consumption
- Compact size
- Automatic temperature adjustment
- Low electrical power consumption

### Accessories

- **TL3 : Mandatory accessory, remote controller, required for the operation of the unit**
- BR: Armoured heating element with safety thermostat.
- BVR: Single row hot water coil.

Compatibility of accessories		
FW	130R	160R
TL 3	•	•
BR 26	•	•
BVR 1	•	•

## Technical data

Mod.	FW	130R	160R
Cooling capacity	W (max.)	2900	4000
Energy Efficiency Class		A	A
EER		4.08	4.65
Humidity removed	l/h	1.78	1.78
Input power	W	710	860
Input current	A	3.55	4.02
Heating capacity with water coil (BVR1)	W	4350	5200
Water flow rate (BVR1)	l/h	600	600
Pressure drops (BVR1)	kPa	12,6	12,6
Heating capacity electric coil (BR26)	W	1200	1200
Fans	n.	2	2
Air flow rate	m <sup>3</sup> /h (max.)	470	690
	m <sup>3</sup> /h (med.)	390	525
	m <sup>3</sup> /h (min.)	270	375
Fans speed	g/m (max.)	800	1140
	g/m (med.)	660	885
	g/m (min.)	500	665
Sound pressure	dB (A)	44	47,5
Water consumption at 30-35°C	l/h	586	804
Condenser pressure drops	kPa	22	40
Refrigerant	Type/GWP	R410A / 2088kgCO <sub>2</sub> eq	
Refrigerant charge	g	750	830
Input nominal power consumption *	W	1120	1500
Nominal input current *	A	4.97	6.65
Input current	A	18	32
Water connections	ø	1/2"F	1/2"F

**Power supply** = 230V ~ 50Hz.

Sound pressure measured in an 85 m<sup>3</sup> semi-reverberant test chamber with reverberation time Tr = 0.5s.

\* In accordance with UNI EN-60335

Data declared in accordance with EN-14511

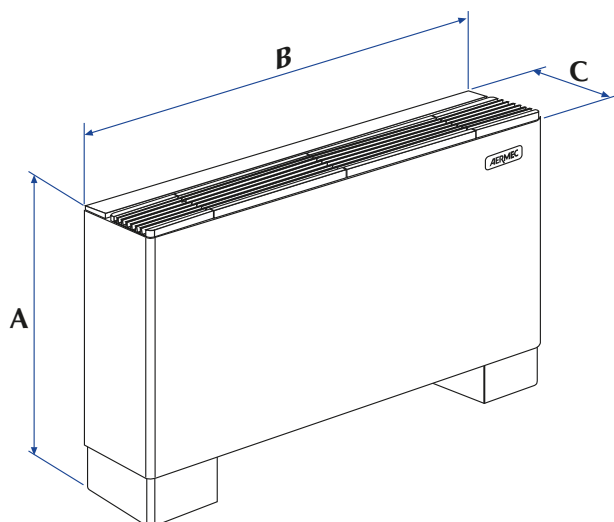
### Cooling

- Room air temperature 27°C B.S. ; 19°C B.U.
- Entering water temperature 30°C
- Leaving water temperature 35°C
- Max speed

### Heating (BVR1):

- Room air temperature 20°C
- Entering water temperature 70°C
- Max speed

## Dimensions (mm)



		FW 130 R	FW 160 R
Height	A	723	723
Width	B	1121	1121
Depth	C	242	242
Weight	Kg	63	67

Aermec reserves the right to implement any and all modifications it deems necessary for product improvement at any time, as well as any modification to related technical data.

**Aermec S.p.A.**  
Via Roma, 996 - 37040 Bevilacqua (VR) - Italia  
Tel. 0442633111 - Telefax 044293577  
www.aermec.com

## CWX

Water cooled condensing unit  
Cooling only operation  
Internal installation with capacity from 3,5 to 6,7kW

HFC  
Refrigerant  
**R410A**



EXC



Accessory TL 3



Accessory PF



CWX

### Characteristics

- Available in 3 versions of different capacities
- The versions are manufactured with refrigerant R410A (CWX1200, CWX1800, CWX2400)
- Operates as cooling only with condensation by water
- CWX condensing unit with rotary compressor
- **EXC:** internal unit with three speed centrifugal fan with the possibility to modify the electrical connection to increase the available static pressure.
- **Mandatory accessory PF(wired panel) or TL3 (remote controller), required for the operation of the unit**

- Horizontally adjustable discharge louvres and motorised deflector louvres, actioned by the remote controller for vertically adjusting the supply air
- Infra red remote controller with liquid crystal display.
- Extremely low noise operation
- Microprocessor controller
- Timer programmed delay start and stop
- Programmes for cooling only, heating only, dehumidification, automatic operation (heating/cooling)
- Washable filter easily removed and with anti mould treatment

- Flare type refrigerant connections
- Refrigerant lines up to 15m
- Vast range of accessories available for the internal unit EXC

## Technical data

<b>CWX</b>		<b>1200</b>	<b>1800</b>	<b>2400</b>
Cooling capacity	W	3500	5100	6700
Total power input	W	795	1370	1940
Total current input	A	3.58	6.34	9.62
Water use at 16°C	l/h	140	235	345
Water use at 30-35°C	l/h	706	1082	1450
Sound pressure	dB(A)	47.5	50.5	50.5
Refrigerant	Type/GWP	R410A / 2088kgCO <sub>2</sub> eq		
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"
	Ø gas	1/2"	1/2"	5/8"
Refrigerant lines	Ø liquid	1/4"	1/4"	1/4"
	Ø gas	1/2"	1/2"	5/8"
<b>EXC</b>		<b>123</b>	<b>183</b>	<b>243</b>
Heating capacity (electric heater)	W	1650	1950	2200
Condensate drain rate	l/h	1.4	1.78	2.3
EER	W/W	-	3.72	3.45
Energy efficiency class		-	A	B
Current input (electric heater)	A	7.2	8.5	9.6
Heating capacity with water coil*	W	3800	5000	6700
Internal unit air flow	(min.) m <sup>3</sup> /h	310	550	610
	(med.) m <sup>3</sup> /h	400	650	830
	(max.) m <sup>3</sup> /h	520	840	960
	(min.) dB(A)	29.0	43	41
Sound pressure	(med.) dB(A)	34.5	46.5	45
	(max.) dB(A)	39.0	50	48
Refrigerant connections	Ø liquid	1/4"	1/4"	1/4"
	Ø gas	1/2"	1/2"	5/8"

**Power supply** = 230V ~ 50Hz

**Performances relate to the following conditions:**

Sound pressure measured in a semi-reverberant room of 85m<sup>3</sup> and reverberation time Tr = 0.5s

Sound pressure measured in an anechoic chamber at 1.3m distance and directivity factor 4

■ Cooling:

- ambient air temperature 27°C Db / 19°C WB
- water temperature (in/out) 30°C / 35°C
- maximum speed

\* = Apply the connection (1/2"F - 5/8"M) supplied loose with the condensing unit CWX 2400 to the refrigerant connections of unit EWP H

## Accessories

**Mandatory accessory PF or TL3 are required for the operation of the unit**

**EXC:**

- **PF:** Control panel with ambient electronic thermostat for wall mounting. It is a **mandatory accessory** since the EXC unit is shipped without.
- **TL3:** Infra red remote controller with liquid crystal display for the control of all functions Kit complete with recess mounted base. It is a **mandatory accessory** since the EXC unit is shipped without.
- **AMP:** Hanging installation kit.
- **BC:** Auxiliary condensate drain pan.
- **BV:** 1 row hot water coil.

- **DSC4:** Condensate pump for overcoming lift.
- **GA:** Intake grille with fixed louveres.
- **GAF:** Intake grille with fixed louveres and filter.
- **GM:** Supply grille with adjustable louveres.
- **MA:** Enclosure Alto.
- **MU:** Enclosure Universale.
- **PA:** Suction plenum in galvanised sheet steel, complete with supply connections in plastic for circular duct connections.
- **PC:** Sheet steel panel for enclosing the rear part of the unit.
- **PM:** Discharge plenum in galvanised steel, externally insulated, with supply connections in plastic for circular duct connections.
- **RD:** Discharge straight connection for ducting.

- **RDA:** Suction straight connection for ducting.
- **RP:** Discharge connection 90° for ducting.
- **RPA:** Suction connection 90° for ducting.
- **RX:** Shielded electric heater coil with safety thermostat.
- **SE:** External air manual damper.
- **SW:** Sensor that permits unit operation only with temperature above 35°C.
- **VCF:** Kit consisting of 3 way motorised valve, connections and copper tubes.
- **ZX:** Feet for floor mounting for models with the accessory MA, or recess mounting.



		Accessory compatibility		
		CWX 1200	CWX 1800	CWX 2400
		EXC 123	EXC 183	EXC 243
TL	3 ***	•	•	•
PF	***	•	•	•
AMP		•	•	•
	4*	• ****	• ****	• ****
	5**	•	•	
BC	6**			•
	8	•	•	
	9			•
	122			
BV	132			
	142	•	•	
	162			•
DSC	4	•	•	•
	22			
GA	32			
	42	•	•	
	62			•
	22			
GAF	32			
	42	•	•	
	62			•
	22			
GM	32			
	42	•	•	
	62			•
	22			
MA	32			
	42	•	•	
	62			•
	22			
MU	32			
	42	•	•	
	62			•
	22			
PA	32			
	42	•	•	
	62			•
	22			
	23			
	32			
PC	33			
	42	•	•	
	43	•	•	
	62			•
	22			
PM	32			
	42	•	•	
	62			•
	22			
RD	32			
	42	•	•	
	62			•
	22			
RDA	32			
	42	•	•	
	62			•
	22			
RP	32			
	42	•	•	
	62			•
	22			
RPA	32			
	42	•	•	
	62			•
	070			
	090			
	120	•		
RX	180		•	
	180 T		•	
	240			•
	240 T			•
	20X			
SE	30X			
	40X	•	•	
	80X			•
SW	3	•	•	•
	44	•	•	
VCF	45			•
	5	•	•	
ZX	6			•
	7	•	•	
	8			•

\* = in combination with accessory MA

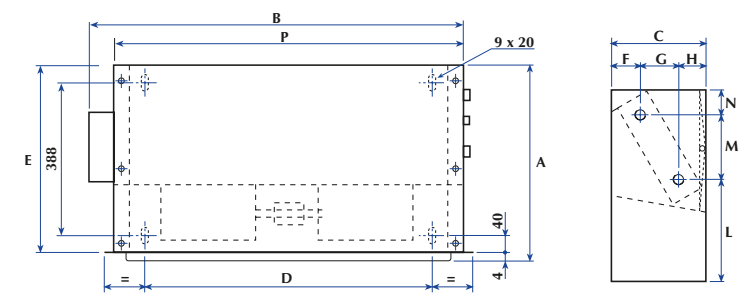
\*\* = in combination with accessory MU

\*\*\* = Is a **mandatory accessory** in that the EXC unit is shipped without

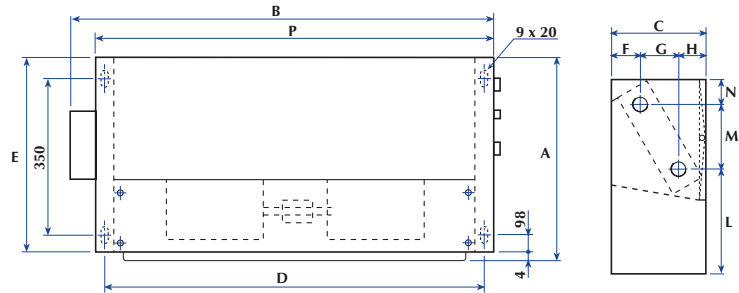
\*\*\*\* = The VCF valve and the BC4 drain pan cannot be installed simultaneously on the same unit.

Dimensional data (mm)

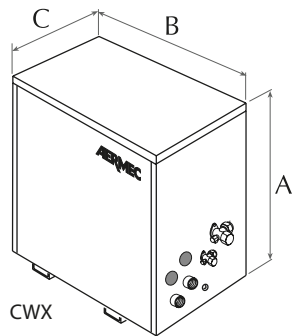
EXC 123 - 183



EXC 243



EXC	123	183	243
A	457	457	562
B	1043	1043	1182
C	216	216	216
D	891	891	1102
E	453	453	558
F	41	41	41
G	101	101	107
H	74	74	68
L	260	260	273
M	144	144	253
N	49	49	32
P	973	973	1122
Weight (kg)	26	27	37



CWX		1200	1800	2400
Height	A	450	450	570
Width	B	470	470	470
Depth	C	260	260	260
Weight	kg	35	38	49

# Smuffo

Dehumidifier Portable

HFC  
Refrigerant

R134a



## Features

- Available in 3 sizes of different capacities
- Modern look and casing in plastic material
- Easy to move from one room to another with 4 rotating wheels
- Relative humidity setting between 80% and 35%
- Visual display of the humidity setting and that read in the room
- Possibility to set continuous operation for operation at maximum dehumidification capacity
- 3 fan speed settings
- Easy and immediate use unit mounted control panel
- Delay timer for starting/stopping (2h, 4h)
- Possibility to discharge the condensate into the bucket mounted in the unit or to externally drain directly through the outlet pipe on the side of the unit
- If the condensate collection bucket is full the dehumidifier will stop and light up the relative indicator
- Indicator lights to show the requirement to clean the filter
- Automatic defrost
- Easy of the filter and the condensate collection bucket cleaning and maintenance
- Auto-diagnostic Function
- Auto-Restart Function

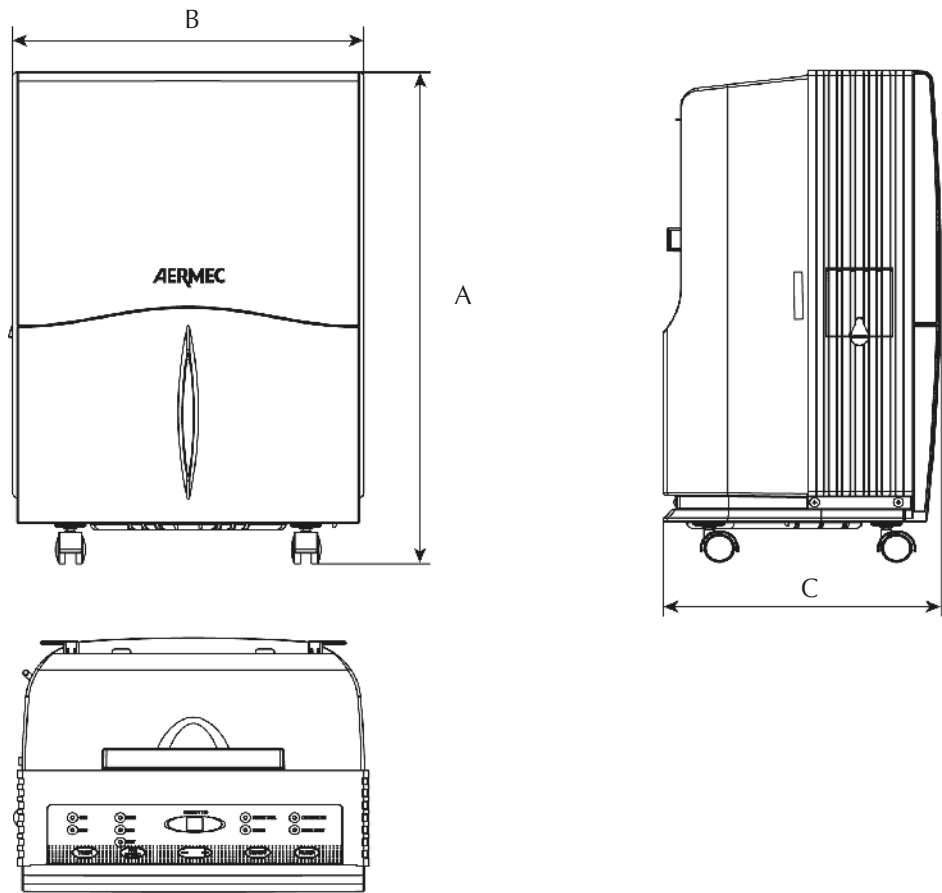
Technical data

Modello			DMK120	DMK200	DMK240
Dehumidification capacity	(1)	l/24h	12	20	24
Dehumidification capacity	(2)	l/24h	4.3	11.5	13.2
Sound power level (max/med/min)		dB(A)	53/51/49	55/53/51	57/55/53
Sound pressure level (max/med/min)	(3)	dB(A)	43/41/39	45/43/41	47/45/43
Air flow rate (max/med/min)		m³/h	150/120/100	180 / 160 / 140	180 / 160 / 140
Condensate bucket collection capacity		l	4.9	4.9	4.9
Power input	(1)	W	250	400	400
Current input	(1)	A	1.4	2.0	2.1
Nominal power input	(4)	W	330	480	500
Refrigerant	Type / GWP		R134a / 1430kgCO <sub>2</sub> eq		
Refrigerant charge		kg	0.09	0.20	0.24
Power supply			220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

Date

- (1) Indoor Air Temeperature 30°C b.s./27°C b.u.
- (2) Indoor Air Temeperature 27°C b.s./21°C b.u. (Tested According to EN-810)
- (3) Sound pressure measured in a semi anechoic chamber, 1m from the front
- (4) Tested According to EN-60335

Dimensions (mm)



		DMK120	DMK200	DMK240
Height	A	523	523	523
Width	B	343	343	343
Depth	C	270	270	270
Weight	[kg]	12.5	14.5	15

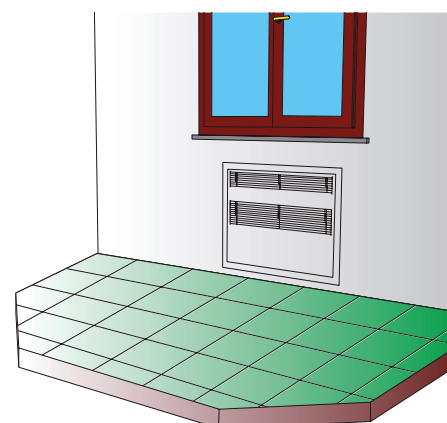
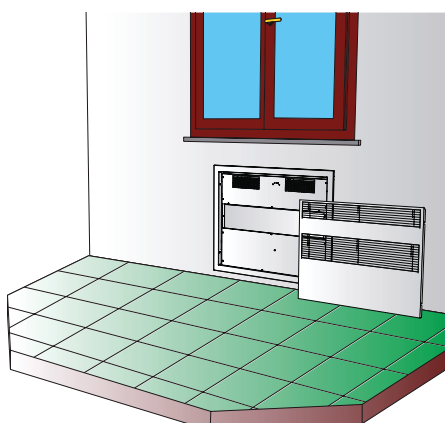
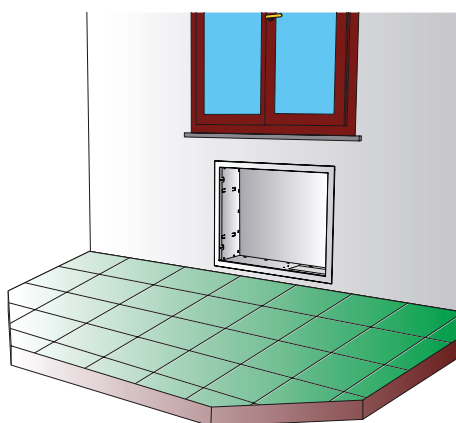
## DMP

Recessed dehumidifier  
for floor systems

HFC  
Refrigerant  
**R134a**



White:  
front panel: RAL 9010



### Features

- Main features:
- vertical installation recessed in the wall;
- silenced functioning;
- small electric consumption;
- high dehumidification efficiency.

The **DMP** dehumidifiers can be integrated perfectly in residential and tertiary environments with:

- floor systems;

#### • Components:

- DMP 20: Monobloc dehumidifier unit, recessed inside the formwork.
- electrostatically pre-charged air filter;
- condensate drip tray;
- hermetic compressor assembled on rubber anti-vibration mounts;
- condensing and evaporating coils realised in copper pipes and aluminium louvers;
- pre-cooling coil: to improve the dehumidification efficiency of the unit;

- post-cooling coil: to control the temperature of the outlet air and send thermally neutral air to the room;
- centrifugal flow fan with uneven pitch rotors for silent functioning;
- adjustment circuit board with remote control panel.
- Refrigerant gas: R134a.

### Accessories

#### DMP 20GL: OBLIGATORY ACCESSORY

-Front closure panel with external frame: realised in polyurethane powder painted galvanised steel (colour RAL 9010). Made up from a frame and panel with air recovery and flow grid in anodised aluminium.

-Formwork: In galvanised steel, it allows unit installation in niche. The formwork has appropriate fins for correct fixing to the wall and is prepared with openings for electric and hydraulic connections;

In the winter season the DMP dehumidifier can be used to accelerate the temperature of the rooms heated by the radiant system reaching normal

working conditions.

## Technical data

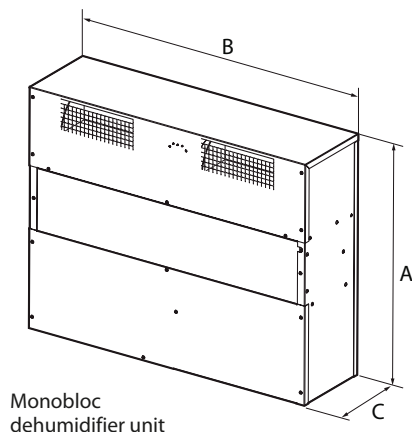
Mod.	DMP 20	
Nominal dehumidification capacity (1)	l/24h	20
Nominal input power (1)	W	340
Nominal input current (1)	A	2,3
Dehumidification capacity (2)	l/24h	49
Input power (2)	W	390
Heating capacity produced - normal working conditions in heating mode (3)	W	1010
Input power (3)	W	25
Refrigerant	Tipo / GWP	R134a / 1430kgCO <sub>2</sub> eq
Refrigerant Charge	kg	0,23
Maximum current absorbed	A	2,5
Peak current	A	4
Nominal water flow rate	l/h	170
Pressure drop	kPa	7
Air Flow Rate	m <sup>3</sup> /h (min.)	200
	m <sup>3</sup> /h (med.)	300
	m <sup>3</sup> /h (max.)	380
Sound Pressure	dB [A]	33
Weight	kg	36

**Power supply voltage = 230V/1/50Hz.**

Sound pressure measured in free field with directionality factor Q=2 at a distance of 1 m (minimum fan speed).  
In compliance with the ISO 3746

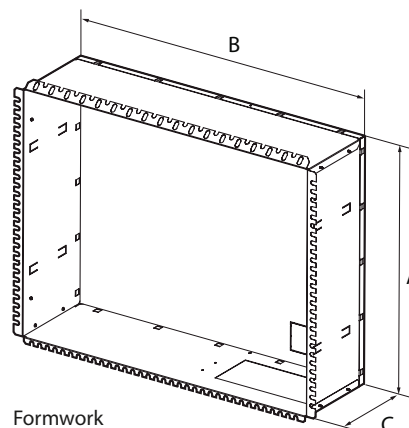
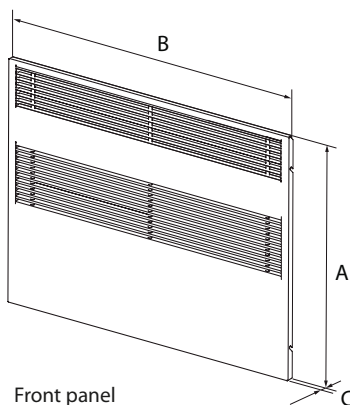
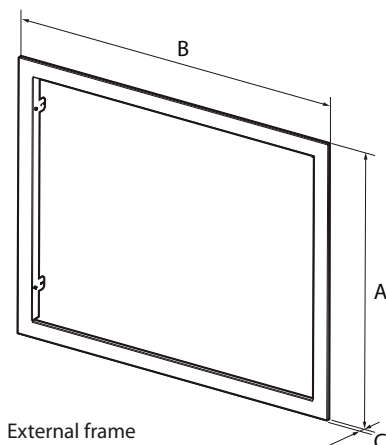
## Dimensional data (mm)

### DMP 20



		DMP 20	DMP 20 GL		
		Monobloc dehumidifier unit	External frame	Front panel	Formwork
Height	[mm] (A)	590	678	596	606
Width	[mm] (B)	750	843	761	771
Depth	[mm] (C)	210	8	18	227

### DMP 20GL



The performance refers to the following conditions:

#### Dehumidification

(1) = Nominal conditions (min. fan speed)

- Room air temperature: 26°C
- Relative humidity: 65%
- Water input temperature: 15°C

(2) = Maximum conditions (min. fan speed)

- Room air temperature: 35°C
- Relative humidity: 80%
- Water input temperature: 15°C

#### Heating

(3) = Rapid heating at normal conditions (min. fan speed)

- Room air temperature: 15°C
- Water input temperature: 35°C

# DISTRIBUTORS / DISTRIBUTEURS

## ALBANIA

AERMEK ALBANIA SH.PK. - BUL. Gjergj Fishta KULLA 4 - TIRANA- Ph. +355 4 2224339 - Fax. +355 4 2224339 - info@aermekalbania.com

## ALGERIA

AIRMEC ALGERIE - 312 Avenue Hamid Kebladj - Hammamet - Ph. + 213 23 15 76 46 - Fax + 213 21 95 61 48 - airmec\_algerie@yahoo.fr

## ANGOLA

CEST – COMÉRCIO E INDÚSTRIA, LDA – Rua do Ex. Matadouro, s/n – Morro Bento – Luanda - Tel. +244 222 469 105 – Fax +244 222 469 024 – geralangola@cest.pt

## ARGENTINA

TROX ARGENTINA SA. - Timbo 2610 - Parque Industrial Burzaco - Buenos Aires - Ph. +54 1142335676 - Fax +5491155234803 - fernando.cani@trox-latinamerica.com

## AUSTRALIA

COSAIR PRODUCTS PTY LTD - Unit 10, 35 Birch Street - Condell Park NSW 2200- Ph. +61 297964668 - Fax +61 297964669 - mcosgrove@cosair.com.au

## AUSTRIA

AERSYS GMBH - Brown Boveri Strasse 8/Stg. 1/5 - 2351 Wiener Neudorf - Ph. +43 (0)2236 387 770- office@aersys.at

## AZERBAIJAN

NEP ENGINEERING - Nizami 86/7 - Baku - Ph./Fax. +99 412 4934560 - nep@nep.az - perviz@ozulinsaat.com - k.secher@nep.com.tr

## BELGIUM

ENERWIN S.P.R.L. - Avenue Vésale 20 B - 1300 WAVRE - Tél. +32 10 232650 - Fax +32 10 812608 - bernard.mendel@enerwin-aermec.be

## BRASIL

TROX DO BRASIL - Rua Cyro Correia Pereira 300 - CIC - Curitiba - Ph. +55 413316-8418 - Fax +55 413316-8490 - fernando.cani@trox-latinamerica.com

## BOLIVIA

CONSULCAD - Av. Roca Y Coronado 2868 - Santa Cruz - Tel. +591 1 351 4555 - proyectos@consulcadsrl.com

## BOSNIA AND HERZEGOVINA

TAURUS D.O.O. - Tvornicka br. 3 - 71000 SARAJEVO - Ph. +387 33 942 142 - info@taurus.ba

## BIELORUSSIA

AEPMEK-BEL Ltd. - 115, Mayakovskogo str. - Minsk - Ph. 375 295018323 - Tornado-ASL@yandex.ru

## BULGARIA

ATARO CLIMA EOOD - 272 Vasil Levski str. - Plovdiv - Ph. +359 32 906 906 - Fax +359 32 906 900 - ataro@ataro.bg  
RATOLA INZHENERING - 51, General Skobelev Blvd. - 1606 Sofia - Ph. +359 2 9691031 - Fax +359 2 9691020 - office@ratolabg.com

## CANADA

MITS AIR CONDITIONING Inc. - 1608 Bonhill Road - L5T 1B451 Mississauga ONTARIO - Ph. +905 564 2221 - Fax + 905 564 2205 - jchatters@mitsair.com

## CHILE

GAPPS - Camino a Melipilla 2259 - PENAFLOR - Santiago - Ph +56 2 28404300 - rtorales@gapss.cl

## CROATIA

MARITERM d.o.o. - Drazice 123D, Zamet - 51 000 Rijeka - Ph. +385 51 815010 - Fax +385 51 815011 - mariterm@mariterm.hr

## CYPRUS

ROYAL ENGINEERING CO. LTD - 6 Trachona Str. - Dhali Industrial Area - 1662 Nicosia - P.O. Box 20689 - Ph. +357 22612199 -  
Fax +357 22610272 - royaleng@cytanet.com.cy

## CZECH REPUBLIC

COMPLETE CZ spol. s.r.o. - V Rovinách 520/46 - 140 00 Praha 4 - Ph. +420 246 030029 - Fax +420 246 030032 - info@completecz.cz

## DENMARK

H. JESSEN JURGENSEN A/S - Tempovej 18-22 - 2750 Ballerup - Ph. +45 70 270607 - Fax +45 70 263405 - jeo@hjj.dk

## DOMINICAN REPUBLIC

AIRLAN (Sede Caribe) - P. Barcelona 30 - 10505 Santo Domingo (República Dominicana) - Ph. 8492621240 - Fax +34944752402

## EGYPT

HETO AIR CONDITIONING - 129, El-nozha St., Triumph - Cairo - Mob. 012 23 35 1125 - Ph. + (202)263 354 43 - Fax + (202) 277 429 84 - essam.morcos@hetoegypt.com

## ESTONIA

VESIROOS PLC - JOE 15, KOHILA - 79808 RAPLAMAA - ESTONIA - raigo@vesiroos.com

## FINLAND

AERMEC SUOMI OY - Hautakorventie 9, 90620 Oulu - Ph. +358 40 149 3449 - veli-matti.rasanen@aermec.fi  
AERMEC SUOMI OY - Mikrokatu 1, 70210 Kuopio - Ph +358 40 674 2509 - ilpo.laitinen@aermec.fi

## FRANCE

AERMEC SAS - PARC VISIONIS II - Rue du Developpement - 01090 GUERINS - Tél. +33 04 74090038 - Fax +33 4 74090988 - info@aermec.fr  
AERMEC SAS - AGENCE SILLON ALPIN - 7, Chemin des Roquevillard - 73160 Cognin - Tél. +33 04 85013570 - Fax +33 04 74090988 - jerome.dubouchet@aermec.fr  
AERMEC SAS - Ile de France - 80 Avenue du Général De Gaulle - 91170 Viry Chatillon - Tél. +33 1 60478348 - Fax +33 1 69436368 - gianni.delfabbro@aermec.fr  
DIMENA SARL - 88 Rue Du Moulineau - 33320 Eysines - Tél. +33-5-57876429 - Fax +33-5-56798900 - contact@dimena.fr  
DIMENA - 6 Rue Maurice Hurel - Parc de la plaine - 31500 Toulouse - kriva@dimena.fr  
S.TE FRANCE CLIM - 41 rue Pierre Sépard - 57300 Hagondange - Tél. +33 3 87517505 - Fax +33 3 87517514 - france.clim@laposte.net  
PHOENIX CLIMATISATION - 8, Rue de Paris - 92190 Meudon - Tél. +33 01 41144191 - Fax +33 01 41145221 - rponcet@phoenix-climatisation.fr  
T.C.A. - Avenue des Maurettes - 06270 Villeneuve Loubet - Tél. +33 4 92133666 - Fax +33 4 93208304 - tca06@tca.fr  
T.C.A. - 19 Rue M. Bastié Z.I. de la Lauze - 34430 St Jean De Vedas - Tél. +33 4 67473690 - Fax +33 4 67479851 - tca34@tca.fr  
T.C.A. - 213 route de la Valentine aux 3 lucs -13011 Marseille - Tél. +33 4 91191919 - Fax +33 467479851 - tca13@tca.fr

## GHANA

Seepacs Engineering Limited - Private Mail Bag, 25 - Cantonment Post Office - Accra - Ph. +233 (0302) 817180 - Fax: +233 (0302) 813454  
g.lasusa@seepacseng.com

## GEORGIA

THERMORUM Ltd. - Vazha-Pshavela Ave.20 - 0160 Tbilisi - Tel. +995 591757550 - Sh.k@thermorum.com

## GERMANY

AERMEC GmbH - Im Tal 10 - 87669 Rieden Am Forggensee - Tel. +49 8362 300600 - Fax +49 8362 3006060 - info@aermec.de  
NOVATHERM KLIMAGERÄTE GmbH - Am Gierath 4 - 40885 Ratingen - Tel. +49 2102 91000 - Fax +49 2102 910010 - ratingen@novatherm.de  
NOVATHERM KLIMAGERÄTE GmbH - Dieselstrasse 40 - 30827 Garbsen-Berenbostel - Tel. +49 5131 49670 - Fax +49 5131 496767 - hannover@novatherm.de

## GREECE

CALDA ENERGY S.A.I.C. -100 Tatoiou Str, Metamorfossi -14452 Athens - Ph/Fax +30 210 28 43 - Fax + 30 210 28 43 - calda@otenet.gr

## HOLLAND

ALKOEL BV - Dwaziewegen 24 - 9301 ZR Roden - Ph. (088) 50 50 980 - m.peek@alkoel.nl

## HUNGARY

OKTOKLIMA - Királyok útja 27 -1039 Budapest - Ph. +36 1 4332360 - Fax +36 1 2403617 - oktoklima@oktoklima.hu

## IRAN

PIONEER MIDDLE EAST CO. - 643, West Sanabad Ave. West - Mashad - Ph. +98 51 38457722/5 - Fax +98 51 38411627 - eng@middleeastvac.com  
PIONEER MIDDLE EAST CO. - 463, East Teleghani Ave. - Theran - Ph. +98 21 88844497/8 - Fax +98 21 88835268 - eng@middleeastvac.com

## IRELAND

European Industrial Chillers Limited - Unit 74 Dunboyne Business Park - Dunboyne Co. Meath - Ph. +353 01 8255155 - Fax +353 01 8255188

## ISRAEL

Tadiran Energy Ltd. - 1 Alexander Yanai St., POB 2603 Petach Tikva - Israel - Tel. +972-3-9283422 - Fax +972-3-5566188 - Aermec@Tadiran-Group.co.il

## NORTHERN IRELAND

PowerTech Refrigeration Ltd - 94a Gosford Road - Markethill CO Armagh BT60 1RH - Ph. +28 3755 2792 - projects@powertechref.com



# VERTRIEBSPARTNER / DISTRIBUIDORES

## KAZAKHSTAN

AERMEK KAZAKHSTAN - Samal-2, 59, Blok B, office 19 - 050040 Almaty - Ph. +77272668648 - info@aermek.kz

## KOREA

GEOPROTEK CO., Ltd. - Rm 1111, Samsung Cheil Build. - Yoksam-Dong Kangnam-Gu - Seoul - Ph. 02 527 3608-9 - Fax 02-527-3610 - geoprotek@daum.net

## KOSOVO

N.SH.M. MONTKOMERCE GZ - RR. Orize 6 H2/11 - Gyakove - Ph. +37 744122804 - gezimzeka4@yahoo.com  
INSTALL ENGINEERING S.H.P.K. - Kroi I Bardhe, 12 - Prishtine - Ph. +381 38 540 977 - info@install-ks.com

## LATVIA

ACQUA COOLING - Smaidu street 1 - LV2130 Riga - Tel. +371 29554778 - info@acq.lv

## LIBYA

JSD Engineering - APOLLONOS str 26 - P.O. BOX: 21865 - 01514 NICOSIA CYPRUS - Ph. +30210-6894 627- leadair@ath.forthnet.gr - leadairsa@gmail.com

## LITHUANIA

NIT Ltd - Savanoriu av. 151 - 03150 Vilnius - Ph. +370 5 2728552 - Fax +370 5 2728559 - andrius@nit.lt

## LUXEMBOURG

CLIMAX LUXEMBOURG SARL - 7 Rue Lankelz - L 4205 Esch Sur Alzette - G.D. of Luxembourg - Ph. +352 26 176615 - Fax +352 26 176625 - info@climax.lu

## MACEDONIA

D.O.O. EUROTERM - UL. Lece Koteski 50 - 7500 PRILEP - Ph. +389 48 419 415 - info@euroterm.com.mk

## MALTA

ENGENUITY LTD - 8 Triq Tal Hlas - Qormi Qrm5011 - Ph. +356 21490957/8 - Fax +356 21490964 - alan.abela@engenuity.com.mt

## MOLDOVA

SC LERAI GROUP - Via Bulgara, 18 - Chisinau MD-2001 - Ph. +373 22 224238 - Fax +373 22 233024 - info@lerai.md

## MOROCCO

ECOTHERM SARL - 67, Rue du Lieutenant MAHROUD ex Rue Chevalier BAYARD - Casablanca 20300 - Tél. +212 522 243300 - Fax +212 522 243302 - contact@ecotherm.ma

## NEW ZEALAND

Black Diamond Technologies Ltd - 1 Parliament St, Lower Hutt, Wellington 5040 - Ph +4 560 9100 - Fax +4 560 9133 - jimb@bdt.co.nz

## NORWAY

NOVEMA KULDE AS - Marenlundveien 5 - 2020 Skedsmokorset - Ph. +4769367190 - Fax +4769367191 - firmapost@novemakulde.no  
NOVEMA KULDE AS - J Brochs gate 12 inng B - 5006 Bergen - Ph. +47 55 348675 Fax +47 55 348675 - firmapost@novemakulde.no  
NOVEMA KULDE AS - Sorgenfrivn 9 - 7037 Trondheim - Ph. +47 73 820890 - Fax +47 55348675 - firmapost@novemakulde.no

## PERU

AIRLAN (Sede Perú) - Avda A Benavides 264 Oficina 601. 264 Miraflores 18 - Lima (Lima-Perú) - Ph. 514472681 - Fax 514474571 - manuelgrana@airlan.es

## POLAND

Aermec Polska Sp. z o.o. -Ul. Pulawska 405 - 02-801 Warszawa - Ph. +48 22 463 43 43 - aermec@aermec.pl

## PORTUGAL

CEST - COMÉRCIO E INDÚSTRIA, LDA - Av. Almirante Gago Coutinho Ouressa Parque Arm. 13, 2725-322 Mem Martins - Tel. +351 219253330 - Fax +351 219253338 - geral@cest.pt

## ROMANIA

AIRMEC ROMANIA S.R.L. - 29 Iezeru Street, Sector 1 - Bucharest - Ph. +40 21 550866589 - Fax +40 21 3260973 - airmec\_romania@yahoo.com

## RUSSIA

AERMEC Spa - Rep. Office Business Center Capital Plaza, 4 Lesnoy Pereulok - office 455 - 125047 Moscow - Ph. +7 495 6638044 - m.l@aermec.com

## SERBIA AND MONTENEGRO

AKTING DOO - Jurija Gagarina, 153/32 - 11070 Novi Beograd - Ph. +381 113187383 - Fax +381 113187387 - aktning@eunet.rs

## SLOVAKIA

KLIMA TEAM s.r.o. - Trnavska 63 - 82101 Bratislava - Ph. +421 2 43293969 - Fax +421 2 43420079 - mail@climateam.sk

## SLOVENIA

BOSSPLAST D.O.O. - Pod Jelsami 5 - 1290 GROSUPLJE - Ph. +386 1 7810 550 - jernej.rodde@bossplast.com

## SOUTH AFRICA

APOLLO AIR CC - Unit 4, 10 Cabernet Str - Saxenburg Park, Kuilsriver - 7562 Cape Town - Ph. +27 21 9057979 - Fax +27 21 9057976 - carlo@apolloair.co.za

## SPAIN

AIRLAN S.A. (Delegación Norte) - Ribera de Deusto 87 - 48014 Bilbao (Vizcaya) - Ph. +34944760139 - Fax +3494752402 - rcoteron@airlan.es  
AIRLAN (Delegación Galicia) - Pol. Ind. Alvedro, Nave E-26 - 15180 Alfredo-Cullerdo (La Coruña) - Ph. 971 706500 - Fax 971706372  
AIRLAN (Delegación Centro) - Calle Antonio López 249 (Edificio Vértice) 3 B - 28041 Madrid - Ph. +34914732765 - Fax +34914732581  
AIRLAN (Delegación Cataluña) - Avda Meridiana 350- 4 A - 8027 Barcelona - Ph. +34932780620 - Fax +34932780224  
AIRLAN (Delegación Levante) - Avda Meridiana 350-4 A - 8027 Barcelona - Ph. +34671570573 - Fax +34932780224  
AIRLAN (Delegación Andalucía) - Pol. Ind. Ctra. De la Isla, C/Acueducto 24, Edif. 2, mod. 9 - 41703 Dos Hermanas (Sevilla) - Ph. +34 955 5406 12  
AIRLAN (Delegación Baleares) - c/ Teixidors 6 - 7009 Pol Ind. San Castelló, Palma (Mallorca) - Ph. +34971706500 - Fax +39971706372  
AIRLAN (Delegación Canarias) - C/ Los Bimbaches 13 Local 2 A - 38107 Santa Cruz de Tenerife (Tenerife) - Ph. +34922214563 - Fax +34922217985

## SYRIA

SINJAB TRADING EST - Murshe Khater st. PO BOX 5358 - 5073 Damascus - Ph. +963 11 4424541 - Fax 963-11-4412862 - sinjabest@gmail.com

## SWEDEN

KYLMA AB - Box 8213 - 163 08 SPÅNGA, - Ph. +46 8 59890805 - Fax +46 8 59890891 - Mikael.Magnusson@kylma.se  
AIRCOIL AB - Angsvagen 22 - 67232 ARJÄNG - Ph. +46 573 711045 - Fax. +46 573 711811 - info@aircoil.se

## SWITZERLAND

TCA THERMOCLIMA AG - Piccardstr. 13 - 9015 St. Gallen - Ph. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch  
TCA THERMOCLIMA AG - Gowerdstr. 10 - 4528 Zuchwil - Ph. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch  
TCA THERMOCLIMA SA - Av. Boveresses 52 - 1010 Lausanne - Ph. +41 71 313 99 22 - Fax +41 71 313 99 29 - info@tca.ch  
KATALTHERM SERVICE S.A. - Via alla Gerra, Cp 54 - 6930 Bedano - Ph. +41 91 935 22 22 - Fax +41 91 935 22 24 - katalthermservice@ticino.com

## TUNISIA

CODIFET S.A.R.L. - 7 Rue de la Chimie Z.I. SIDI REZIG - 2033 Megrine - Tél. +216 71 433035 - Fax +216 71 433239 - codifet@planet.tn

## TURKEY

AIR TRADE CENTER - Ibrahim Karaoglanoglu Caddesi No: 101 - 34418 Seyrantepe / Istanbul - Ph. 90(0)2122834510 - Fax 90(0)2122783964  
atc.turkey@airtradecentre.com

## UKRAINE

AERMEK UKRAINE LLC. - 7B Artyleriskiy lane - 03113 Kyiv-113 - Ph. +38 044 229 74 47 - Fax +38044 390 73-47 - office@aermec.com.ua

## URUGUAY

CLIMATIZACION INTEGRAL LTDA - Pedro Cosio 2064 - 11400 Montevideo - Tel. +598 26136565 - Fax +598 26136565 - pgiosa@climatizacion.com.uy

## UNITED STATES

MIT'S AIR CONDITIONING Inc. - 1608 Bonhill Road. - CA L5T 1C7 Mississauga (Canada) - Ph. 1-888-567-2227 - Fax 905-564-2221 - help@aermec.us

## UNITED ARAB EMIRATES

PROGEN General Trading L.L.C - 6th Floor, Concord Tower - Dubai Media City, P.O. Box 500 434 - Dubai - Tel. +971 4 454 9823 - Fax +971 4 454 2310  
auof@progentrd.com

## UNITED KINGDOM

AERMEC UK LIMITED - 288 Bishopsgate - London - EC2M 4QP - Ph. +44 0203 008 5940 - Fax +44 0203 008 5941 - uksales@aermec.co.uk

## VIETNAM

BACH KHOA Co., Ltd. - 790 Su Van Hanh St., Dist.10 - Ho Chi Minh City, Vietnam - Tel: +84 903 999 357 - info@hvac.vn  
BACH KHOA Co., Ltd. - Room 702, No. 35, Lane 1 - Tran Thai Tong St, Cau Giay Dist, Hanoi - Tel: +84 915 141 176 - info@hvac.vn



**Aermec S.p.A.** via Roma, 996 - 37040 Bevilacqua (VR) Italy  
T. +39 0442 633111 F. +39 0442 93577  
**sales@aermec.com** **www.aermec.com**



# AERMEC

